UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/100,244	05/27/2016	Herbert GROSS	GRI-001	2020

25962 7590 10/07/2019

SLATER MATSIL, LLP
17950 PRESTON RD, SUITE 1000
DALLAS, TX 75252-5793

EXAMINER
AKANBI, ISIAKA O

ART UNIT	PAPER NUMBER
2886	

NOTIFICATION DATE	DELIVERY MODE
10/07/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@slatermatsil.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HERBERT GROSS, BERNHARD MESSERSCHMIDT, MINYI ZHONG, and MARCEL KUNZE

Appeal 2019-000261
Application 15/100,244
Technology Center 2800

BEFORE LINDA M. GAUDETTE, KAREN M. HASTINGS, and RAE LYNN P. GUEST, *Administrative Patent Judges.*

GAUDETTE, *Administrative Patent Judge.*

DECISION ON APPEAL[1]

The Appellant[2] appeals under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 16–31. Final Act. 1.[3]

We REVERSE.

[1] This Decision includes citations to the following documents: Substitute Specification filed May 27, 2016 ("Spec."); Final Office Action dated November 3, 2017 ("Final"); Appeal Brief filed May 2, 2018 ("Appeal Br."); Examiner's Answer dated August 9, 2018 ("Ans."); and Reply Brief filed October 9, 2018 ("Reply Br.").

[2] We use the word "Appellant" to refer to the "Applicant" as defined in 37 C.F.R. § 1.42(a). The Appellant, also identified as the real party in interest (Appeal Br. 2), is Grintech GMBH.

[3] We have jurisdiction under 35 U.S.C. § 6(b).

CLAIMED SUBJECT MATTER

Claim 16, reproduced below, is illustrative of the claimed subject matter:

> 16. A device for contactless optical distance measurement, the device comprising:
>
> a light source;
>
> a light analysis unit; and
>
> a measurement head,
>
> wherein the light source is a polychromatic light source, which is suitable for emitting light of a continuous spectrum into the measurement head,
>
> wherein the light analysis unit is suitable for receiving and for spectrally analyzing received light from the measurement head,
>
> wherein the measurement head has an aperture opening for entry of the light of the light source into the measurement head and for exit of the received light from the measurement head towards the light analysis unit,
>
> wherein the measurement head has an optical lens system, which has a chromatic longitudinal aberration,
>
> wherein the optical lens system consists only of a first refractive lens and a second refractive lens,
>
> wherein the first refractive lens has an aspherically curved lens surface,
>
> wherein the optical lens system has such a chromatic longitudinal aberration that a measurement region, which equals an axial focus shift of the optical lens system between the wavelengths 450 nm and 700 nm, is between 0.2 mm inclusively and 10 mm inclusively,
>
> wherein both the first refractive lens and the second refractive lens have an optical material with an Abbe number $20 \leq vd \leq 41$, and

> wherein a product of the measurement region and a square of a numerical aperture on a side of the measurement region is between 100 μm inclusively and 450 μm inclusively.

Appeal Br. 11 (Claims Appendix).

REFERENCES

The Examiner relies on the following prior art as evidence of unpatentability:

Altendorf	US 2008/0239278 A1	Oct. 2, 2008
Rayer	US 2014/0347660 A1	Nov. 27, 2014

REJECTION

Claims 16–31 are rejected under 35 U.S.C. § 103 as unpatentable over Altendorf in view of Rayer. Ans. 2.

OPINION

Each of independent claims 16 and 31 recites "wherein both the first refractive lens and the second refractive lens have an optical material with an Abbe number $20 \leq vd \leq 41$." Appeal Br. 11, 14 (Claims Appendix). The Examiner found Altendorf discloses first and second lenses 101A, 101B that meet this limitation. Final 4. Specifically, the Examiner relied on Altendorf paragraph 36, which describes an embodiment wherein "the first lens portion 101A has a relatively lower Abbe number of 25.4 and a refractive index of 1.8, while the second lens portion 101B has a relatively higher Abbe number of 45.8 and a refractive index of 1.5."

The Appellant argues that the above-quoted claim limitation is not met by Altendorf because only lens 101A has an Abbe number that falls within the claimed range, whereas the claims require that both the first and

the second refractive lenses have Abbe numbers within the claimed range. Appeal Br. 7.

In response, the Examiner clarifies that the rejection is based on Altendorf's disclosure that "the average Abbe number of the corresponding doublet lens element 101 is 35.6." Ans. 8–9 (citing Altendorf ¶ 36). The Examiner asserts that "the broadest reasonable interpretation [of] 'both' means one and the other; two together or the two; two considered together." *Id.* at 8.

The Appellant argues that the Examiner's claim interpretation fails to take into account that the claims require that both of the refractive lenses have "an optical material with an Abbe number $20 \leq vd \leq 41$." Reply Br. 2. The Appellant argues, therefore, that each lens must have a material with an Abbe number that falls within the claimed range. *Id.*

We are persuaded that the Examiner's rejection is based on an overly-broad claim interpretation that is not supported by the Specification.

During examination, claim terms are given their broadest reasonable construction consistent with the Specification. *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007). There is no indication in the Final Office Action or the Answer that the Examiner considered the Specification when interpreting the argued claim language. Instead, the Examiner generally cites Dictionary.com in support of the interpretation of "both" as encompassing the average Abbe number of the two lenses. *See* Ans. 8. Our reviewing court, however, has explained that "dictionary definitions must give way to the meaning imparted by the specification." *In re Johnston*, 435 F.3d 1381, 1384 (Fed. Cir. 2006). "Even when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or

ascertained by a reading of the patent documents." *Iredeto Access, Inc. v. Echostar Satellite Corp*., 383 F.3d 1295, 1300 (Fed. Cir. 2004) (internal quotation marks omitted), *quoted in In re Abbott Diabetes Care Inc.*, 696 F.3d 1142, 1150 (Fed. Cir. 2012).

As argued by the Appellant (Reply Br. 2), the Examiner did not consider that the claims require that "*both* the first refractive lens and the second refractive lens *have an optical material* with an Abbe number $20 \leq vd \leq 41$" (Claims 16, 31 (emphasis added)). We agree with the Appellant that one of ordinary skill in the art would understand this language as requiring that each of the two lenses is made of a material having an Abbe number in the claimed range. This interpretation is consistent with the written description. *See, e.g.*, Spec. ¶ 15 ("The first and/or the second refractive lens of the optical lens system advantageously have an optical material with an Abbe number $20 \leq v_d \leq 41$. The Abbe number is a measurement for the dispersion of an optical material."), ¶ 56 ("Particularly preferably both lenses 1, 2 of the optical lens systems 12 are made of strongly dispersive optical materials with Abbe numbers v_d between 20 and 41.").

In sum, the Appellant has argued persuasively that the Examiner's rejection is based on an overly-broad interpretation of the claim language "wherein both the first refractive lens and the second refractive lens have an optical material with an Abbe number $20 \leq vd \leq 41$" (claims 16, 31) as encompassing Altendorf's lenses 101A, 101B, only one of which has an Abbe number within the claimed range.

CONCLUSION

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
16–31	103	Altendorf, Rayer		16–31

REVERSED