

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MAGIC LEAP, INC

Petitioner,

v.

PERCEPT TECHNOLOGIES INC.

Patent Owner.

IPR2023-00495

Patent 8,696,113

PATENT OWNER'S SUR-REPLY

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Petitioner, Magic Leap, argues that Percept's Patent Owner response is "insufficient to rebut [its] petition." Reply at 2. Not true. Nothing requires the Board to accept Petitioner's declarant's testimony concerning the patentability of the challenged claims, especially where, as here, that testimony is at odds with the meaning of the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) ("[A] court should discount any expert testimony 'that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.'") (quoting *Key Pharms. V. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998); *Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1378 (Fed. Cir. 2017) (expert testimony that is inconsistent with the record, or based on an incorrect understanding of the claims must be disregarded). Moreover, in cases such as this, testimony from a technical expert is not a prerequisite for establishing any proposition. *See, e.g., Centricut, LLC v. Esab Group, Inc.*, 390 F.3d 1361, 1369 (Fed. Cir. 2004) ("In many patent cases expert testimony will not be necessary because the technology will be easily understandable without the need for expert explanatory testimony.") (quotation omitted); *and see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) ("Rigid

preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.”). Nor are Dr. LaViola’s opinions regarding the ultimate conclusion of obviousness either “necessary or controlling” on the matter. *Avia Group Int’l, Inc. v. L.A. Gear Cal., Inc.*, 853 F.2d 1557, 1564 (Fed. Cir. 1988) (“[A]n expert’s opinion on the legal conclusion of obviousness is neither necessary nor controlling.”).

I. THE CHALLENGED CLAIMS REQUIRE AN EXCHANGE OF INFORMATION BETWEEN THE DYNAMIC EYE TRACKING MECHANISM AND THE LENS OF THE WEARABLE OPTICS

Magic Leap agrees that the claims should be construed consistent with their plain and ordinary meaning as understood by a person of ordinary skill in the art. Reply at 4. But while this is *how* the claims should be construed, Magic Leap is wrong when it argues that, “The Board should again decline to provide an explicit construction for [the disputed] limitations.” Simply stating *how* the claims should be understood without then deciding *what* that understand is, is legal error. See *O2 Micro Int’l. Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1361-1362 (Fed. Cir. 2008) (although “district courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims,” and even if a term in

question has a “well-understood definition,” the court must interpret the scope of any claim term for which the parties have presented a “fundamental dispute”).

It is fundamental to resolving the legal question of obviousness that the Board construe the so as to determine their meaning to a person of ordinary skill in the art. It is that meaning (and not simple the manner of determining the meaning) that will determine whether or not the claims are unpatentable in view of the prior art. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17-18 (1966) (among other things, assessing obviousness requires a determination of differences between the prior art and the claims at issue).

In this case, Magic Leap alleges, “‘In communication with’ Has No Specialized Meaning.” Reply at 8. Instead, says Magic Leap, it means only “sending communication to or receiving communication from.” *Id.* at 9. But what is sending communication to or receiving communication from if not “exchanging information”? Magic Leap insists there is a difference because an “exchange” implies two-way communication. *Id.* at 11-12. But that understanding ignores, if not rewrites “with.”

To be in communication *with* something, as in the dynamic eye tracking mechanism being in communication with the lens, as recited in the

challenged claims, requires some participation from each entity. If the communication is limited to one entity or the other sending information there can be no assurance that information is actually received. Only if there is some form of reply can the sender be assured that it is actually in communication *with* the intended recipient.

Magic Leap would (and does) argue that no such action by both entities is needed. *Id.* at 10 (“The claim language does not require that communication with the lens be *active*.”). In support of this notion, Magic Leap points to the specification and says it discloses embodiments where the lens communicates passively. *Id.* Referring to Fig. 5C, Magic Leap argues that a lens receiving and displaying images that are projected by a display projector is thereby *communicating*, but not in an active fashion. *Id.*

First, the embodiment cited by Magic Leap is not an example of a dynamic eye tracking mechanism in communication with a lens. If anything, the dynamic eye tracking mechanism is in communication with the projector, not the lens, in this example. Causing an image to be projected on a lens is not communication with the lens as there is no information exchange *with* the lens.

Second, Magic Leap’s reliance on briefing to the District Court in connection with the proposed construction for the term “lens,” *id.* at 10-11

(citing Ex. 1008), is not determinative here inasmuch as the Board is being asked to construe “in communication with,” not “lens.” In the District Court, the dispute concerned an overly narrow construction of “lens” proposed by Magic Leap that was restricted to lenses that transmit and refract light. Ex. 1008 at 9. Percept noted that “lenses” were not so limited in the ’113 patent, but said nothing about the requirement for communication between the lens and the dynamic eye tracking mechanism. *Id.* at 7-10. Indeed, that aspect of the challenged claims was never at issue in the District Court. *Id.* at 2-3.

Even if the Board agrees with Magic Leap that “active” should not be part of the construction of the disputed limitation, it remains that the phrase, “a dynamic eye tracking mechanism in communication with the lens of the wearable optics,” should be understood as reciting a dynamic eye tracking mechanism and a lens that exchange information with one another. As noted in the Patent Owner’s Response, “the phrase ‘in communication with’ is expressing a relationship between the dynamic eye tracking mechanism and the lens of the wearable optics.” PO Response at 7. By specifying the communication is *with* (and merely to or from) the lens, the claim is denoting an accompaniment, that is, an exchange of information between the lens and the dynamic eye tracking mechanism. To participate in such an exchange is to be “in communication with” something.

II. OSTERHOUT DOES NOT TEACH OR SUGGEST A DYNAMIC EYE TRACKING MECHANISM IN COMMUNICATION WITH A LENS

Magic Leap alleges that it put forth a number of proposed ways in which Osterhout teaches the so-called “communication requirement” of the challenged claims:

- by describing a display projected on the lens;
- by describing correlation of a viewing direction of the eye to a point on the display, which is then used to interpret commands;
- by optical communication (because the lens receives light rays that are transmitted by the lens to the eye tracking mechanism and received via a camera);
- by the eye tracking mechanism detecting eye motions and eye gaze directed toward specific portions of the lens; and
- by describing a lens that uses an embedded optical component to measure the eye motion.

Reply at 17. None are correct.

As to teachings concerning displaying items on a lens, the Reply contends this was argued in the Petition at p. 20. *Id.* This is a contrived reading of the actual argument set forth in the Petition, which reads:

Further, Osterhout discloses that the dynamic eye tracking mechanism can “correlate the viewing direction of the eye to a point on the display,” and that the eyepiece can interpret commands based on that point on the display. Because the display is projected on the lens, the dynamic eye tracking mechanism is thus further in communication with the lens at least by correlating the viewing direction to a point on the lens.

Pet. at 20 (citations omitted). Rather than making a separate argument that by describing a display projected on the lens the dynamic eye tracking mechanism is in communication with the lens, as Magic Leap now contends, the actual argument in the Petition was that “the dynamic eye tracking mechanism is thus further in communication with the lens at least by correlating the viewing direction to a point on the lens.” *Id.* Thus, to the extent the Reply has introduced a new argument, that argument should not be considered by the Board. *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (“It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’”) (citing 35 U.S.C. § 312(a)(3)); *see also* PTAB Consol. Trial Prac. Guide (“Consol. TPG”) at 73

(Nov. 2019) (admonishing petitioners that a reply cannot for the first time adopt new theories of unpatentability).

If the Board believes the Petition did argue that displaying items on a lens alone teaches the dynamic eye tracking mechanism is in communication with the lens, it matters not for that argument is wrong. As explained in the Patent Owner Response, in such a display the lens is not involved in any information exchange. PO Response at 22. “Projection optics” cause images to be displayed on the lens, Ex. 1005 at [0164], but the lens does not participate in any exchange of information with the eye tracking mechanism, as required by the challenged claims.

As to the argument that by describing correlation of a viewing direction of the eye to a point on the display, which is then used to interpret commands, this does not teach a dynamic eye tracking mechanism in communication with a lens because there is no information exchange between the lens and the dynamic eye tracking facility as part of this correlation. Osterhout states only that the direction of viewer’s gaze is monitored. Ex. 1005 at [0304]. Nothing is said about the need for the dynamic eye tracking facility to be in communication with the lens for the command interpretation to be made and neither Magic Leap nor its declarant explained why this must be so. Indeed, there is no discussion in Osterhout of

the lens being involved in providing any information to or receiving any information from the dynamic eye tracking facility as part of such a correlation. It is merely the eye tracking mechanism on its own observing the direction of the viewer's gaze and determining where that gaze lands on the lens. Insofar as "the eyepiece may be able to interpret commands through a combination of where the wearer is looking and an action by the wearer," Ex. 1005 at [0304], such actions do not involve the lens. *See* PO Response at 20-22.

Magic Leap's contention that the eye tracking facility of Osterhout is "in communication with" the lens because the lens receives light rays that are transmitted by the lens to the eye tracking mechanism and received via a camera, and therefore the two are in "optical communication" is similarly unavailing. Magic Leap failed to explain why by receiving light rays passing through a lens the dynamic eye tracking mechanism is *in communication with* the lens, as required by claims 1 and 12, and, in any event, there is no information exchange as part of such passage of light rays. Indeed, one can imagine a situation where a wearer is looking at a wall through the lenses. It would be absurd to conclude that the eye tracking mechanism is therefore in communication (optical or otherwise) with the wall because the light

ultimately received by the eye tracking mechanism was reflected or scattered from that wall.

Likewise, Magic Leap's argument that, by the eye tracking mechanism detecting eye motions and eye gaze directed toward specific portions of the lens, the eye tracking mechanism is "in communication with" the lens also fails. Osterhout describes a camera directed towards a wearer's eye and used to interpret various eye movements as commands for a controlled device. Ex. 1005 at [0304]. Insofar as the camera detects where the wearer is looking, this does not demonstrate that a camera (or, more generally, the eye tracking facility) is in communication with the lens. No exchange of information between the camera (or the eye tracking facility) and the lens is identified by Osterhout and none is needed for this operation to occur. Simply because light received by the camera may travel through the lens does not demonstrate that the camera is *in communication with* the lens, because the lens is not exchanging any information with the camera. Similarly, in circumstances where a wearer's gaze might be directed to a part of a lens, the camera is *not* in communication with the lens because there remains no information exchange, *i.e.*, no communication, between those items.

Finally, with respect to Magic Leap’s assertion that by describing a lens that uses an embedded optical component to measure the eye motion the eye tracking mechanism is “in communication with” the lens, as explained in the Patent Owner Response this too is wrong. PO Response at 23-25. The entire discussion of the “special contact lens” is at [0301] of Osterhout. The reader is advised: “a special contact lens may be provided to the user with an embedded optical component, such as a mirror, magnetic field sensor, and the like, for measuring the motion of the eye.” Ex. 1005 at [0301]. There is no teaching or suggestion that this particular eye motion sensor is in communication with the lens—that is, the lens of the “wearable optical device” of the challenged claims. That “lens” is not the “special contact lens” of Osterhout, at least because Magic Leap maps the “wearable optical device” to Osterhout’s augmented reality eyepiece, Pet. at 16, which includes lens 104. *Id.* at 17. Moreover, the “lens” of claim 12, which is the same lens in claim 1, PO Response at 23-25, “includes a plurality of layers.” Ex. 1001 at 15:20, and nothing in Osterhout describes the “special contact lens” as including a plurality of layers, nor are any such layers suggested. Ex. 1005 at [0301].

To the extent the Reply imparts a special meaning to the term “lens” such that the lens of claim 12 is not the lens of claim 1, *see* Reply at 20-21,

Magic Leap has not set forth any construction of lens that explains the differences or why the terms should be construed differently. Indeed, doing so would be highly unusual. *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1345 (Fed. Cir. 1998) (terms used identically in different claims should be construed consistently across the claims.). The Board should not countenance such an argument, especially as it was not presented in the Petition.

Thus, none of Magic Leap's arguments demonstrate that Osterhout teaches or suggests the subject matter required by independent claims 1 and 12, and therefore these claims, and their respective dependent claims, should not be found unpatentable in view of Osterhout. *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (obviousness requires a suggestion of all limitations in a claim); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); *Hartness Int'l. Inc. v. Simplimatic Engineering Co.*, 819 F.2d 1100 (Fed. Cir. 1987) (a claim that depends from a nonobvious independent claim is nonobvious because it contains all of the limitations of that independent claim plus a further limitation).

III. THE COMBINATION OF MANN '526 AND VAISSIE DOES NOT TEACH OR SUGGEST A DYNAMIC EYE TRACKING MECHANISM IN COMMUNICATION WITH A LENS

Magic Leap argues its Mann '526-Vaissie combination “does not rely on Fig. 10 alone to meet the communication limitation,” and instead, “the two-sided mirror 315 of Fig. 3—through which light rays 311 and 321 transmitted the lens ‘pass through ... without being deflected’—demonstrates how the light rays are communicated from the lens to the eye tracking mechanism.” Reply at 22. Further, “the combined system as described in the Petition meets the communication limitation because the light transmitted by the lens, as well as infrared light generated by the eye tracking mechanism, are both captured in an image of the eye by the eye tracking mechanism.” *Id.* at 22-23. This is not true.

By admitting that light rays pass through the lens without being deflected in the proposed Mann '526-Vaissie combination, Magic Leap acknowledges that there is no information exchange taking place between the dynamic eye tracking mechanism and the lens, as required by the challenged claims. By failing to “deflect” or otherwise modulate the light rays pass through the lens, the lens imparts no information to the eye tracking mechanism via these light rays. Absent any information exchange

there is no showing that the eye tracking mechanism is in communication with the lens.

Furthermore, as explained in the Patent Owner Response, because the eye tracking mechanism relies on infrared light produced by the mechanism itself for tracking eye movement, any natural light passed through the lens and reflected off an eye is not used by the eye tracking mechanism anyway. PO Response at 29 et seq. In a Mann '526-Vaissie combination, the eye tracker assembly 1010 itself would “illuminate[] and observe[] the eyeball by way of rays of light 1011.” Ex. 1006 at 25:1-5. Those light rays are produced by the eye tracker assembly’s infrared light source. *Id.* There would be no use of light rays received from the lens, as alleged by Magic Leap.

Replacing Mann '526’s mirror 315 with a beamsplitter would not cure this deficiency of Mann '526-Vaissie. As previously explained, Mann '526 contemplates such an arrangement, with a portion of the light rays deflected by the beamsplitter 415 being directed into camera 330, nevertheless the eye tracking mechanism 1010 still utilizes only the infrared light which it produces, and not light passed through the lens, in order to track eye motion. See PO Response at 34-35. Thus, even if such an arrangement were used, the eye tracking mechanism still would not be in communication with the

lens because there still would be no exchange of information between these components. *Id.* at 35. Thus, Magic Leap’s argument that the combination of Mann ’526 and Vaissie teaches or suggests the subject matter required by independent claims 1 and 12, or any of their respective dependent claims, fails.

IV. CONCLUSION

For at least the foregoing reasons, and those in the Patent Owner’s Response, the Board should confirm the patentability of claims 1-3 and 12-14.

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WORD-COUNT CERTIFICATE

I certify that the foregoing document complies with the type-volume limitation of 37 C.F.R. § 42.24(a) and (b) and contains 3,134 words (including words in drawings created by the Patent Owner or as annotations added by the Patent Owner to images reproduced in this document) based on the word count indicated by Microsoft® Word for Mac v. 16.81, excluding those portions exempted by the rule.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing:

PATENT OWNER'S SUR-REPLY

and its accompanying exhibits were served on February 29, 2024, by filing this document through the PTAB P-TACT System as well as by delivering a copy via email directed to the attorneys of record for the Petitioner at the following addresses:

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