

NOTE: This disposition is nonprecedential.

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

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**VOCALTAG LTD., SCR ENGINEERS LTD.,**  
*Plaintiffs-Appellants*

v.

**AGIS AUTOMATISERING B.V.,**  
*Defendant-Appellee*

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2015-1804

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Appeal from the United States District Court for the  
Western District of Wisconsin in No. 3:13-cv-00612-JDP,  
Judge James D. Peterson.

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Decided: September 1, 2016

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Before PROST, *Chief Judge*, CHEN, and STOLL, *Circuit Judges*.

STOLL, *Circuit Judge*.

VocalTag Ltd. and SCR Engineers Ltd. (collectively, “VocalTag”) appeal the United States District Court for the Western District of Wisconsin’s grant of summary judgment finding that Agis Automatisering B.V.’s accused CowManager system does not infringe the asserted claims of U.S. Patent Nos. 7,350,481 and 7,878,149 as well as the district court’s grant of summary judgment of no willful infringement. For the reasons below, we affirm.

#### BACKGROUND

The ’481 and ’149 patents are directed to devices and methods for monitoring activity of cattle. VocalTag filed a patent infringement suit against Agis, accusing Agis’s CowManager system of infringement.<sup>1</sup> The accused CowManager system includes an accelerometer and a microprocessor attached to an ear tag. The accelerometer measures instantaneous acceleration forces, and the microprocessor performs statistical calculations for each sample of acceleration data. Applying an algorithm, the CowManager system then classifies the data into behavior categories, with certain categories correlating to a cow that is ruminating or in estrus. After construing several disputed claim terms, the district court granted Agis’s motion for summary judgment of noninfringement and no willful infringement on all asserted claims.

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<sup>1</sup> VocalTag asserted claims 1, 8, and 9 of the ’481 patent and claims 1–6, 11–17, 23, and 24 of the ’149 patent against Agis.

## I.

The '481 patent, or “ruminating” patent, relates to a method and system for monitoring chewing actions of ruminant animals, such as cattle, with the use of sensors and data processors. '481 patent col. 1 l. 62 – col. 2 l. 3. Ruminant animals have multi-chamber stomachs and digest food through a process involving chewing, swallowing, and regurgitation. *Id.* col. 1 ll. 19–28. Exemplary claim 1 recites:

1. A monitoring system for monitoring the suitability of animal feed, of ruminant animals, comprising:

*at least one sensor for sensing chewing actions of the animal produced by the animal while chewing animal feed, including the time of each chewing action and the number of chewing actions per predetermined time interval, for indicating a ruminating activity;*

*and a data processor accumulating both the time of each said sensed chewing actions and the number of said chewing actions per unit time interval, for determining the chewing rhythm of the animal indicating ruminating activities over a predetermined time period to provide an indication of desirable changes in the animal feed for maximizing milk production or for maintaining animal health.*

*Id.* col. 8 l. 56 – col. 9 l. 3 (emphases added).

The district court determined that the claim limitation “sensor for sensing chewing actions” is a means-plus-function limitation under 35 U.S.C. § 112, para. 6,<sup>2</sup> with a

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<sup>2</sup> The version of 35 U.S.C. § 112 that applies here is the version in force preceding the changes made by the

function of “sensing chewing actions of the animal produced by the animal while chewing animal feed, including the time of each chewing action and the number of chewing actions per predetermined time interval.” J.A. 8. The corresponding structure, according to the district court, is a sound sensor, including a diaphragm-type microphone, a piezoelectric device, or any other sound-to-electrical transducer. J.A. 10.

The district court similarly determined that the claimed “data processor” is a means-plus-function limitation, with a function of “accumulating both the time of each of said sensed chewing actions and the number of said chewing actions per unit time interval, for determining the chewing rhythm of the animal indicating ruminating activities over a predetermined time period to provide an indication of desirable changes in the animal feed for maximizing milk production or for maintaining animal health.” J.A. 10. And the district court found the corresponding structures are the algorithms in Figures 8 and 11 of the ’481 patent. J.A. 11.

In view of these constructions, the district court granted summary judgment of noninfringement because it found the undisputed operation of the accused Cow-Manager system does not utilize sound sensors, measure the time of each chew, or count individual chews. J.A. 15–17.

## II.

The ’149 patent, or “estrus” patent, is directed to a method and device for detecting estrus in cattle by sensing motion of the animal and differentiating eating-

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America Invents Act, given the effective filing dates of the claims of the ’481 and ’149 patents. *See Leahy-Smith America Invents Act*, Pub. L. No. 112-29, 125 Stat. 284, 293 (2011).

related motion from other motion. '149 patent col. 2 ll. 31–41. Representative claim 12 recites:

12. A device for detecting estrus in a cattle animal, comprising:

at least one acceleration sensor for sensing acceleration level of said cattle animal over a period of time, wherein the acceleration level is indicated by energy level of an acceleration signal produced by the acceleration sensor;

at least one sensor for sensing over a period of time, data indicative of eating performed by said cattle animal; and

at least one microprocessor for accumulating said acceleration signal, *attenuating the energy level of the acceleration signal as the indication of eating is stronger*, the energy attenuated acceleration signal identifying neutralized motion data, extracting typical activity level of said animal based on said neutralized motion data and identifying abnormal behavior indicative of said estrus in said animal by comparing recently identified neutralized motion data with the extracted typical activity level.

*Id.* col. 8 l. 66 – col. 9 l. 15 (emphasis added).

The district court construed the attenuating step as “requir[ing] that the energy level of the signal from the acceleration sensor be reduced in proportion to the strength of the indication that the animal is eating.” J.A. 25. The district court then granted summary judgment of noninfringement because it found that “at no point is the energy level of the [CowManager] accelerometer signal attenuated” and any purported attenuation is not proportionate to the strength of the indication of eating. J.A. 26–28.

VocalTag appeals, and we have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

We review a district court’s grant of summary judgment under the law of the regional circuit, here the Seventh Circuit. *Taurus IP, LLC v. DaimlerChrysler Corp.*, 726 F.3d 1306, 1322 (Fed. Cir. 2013). The Seventh Circuit reviews the grant of summary judgment de novo. *Id.* Summary judgment is proper where “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a).

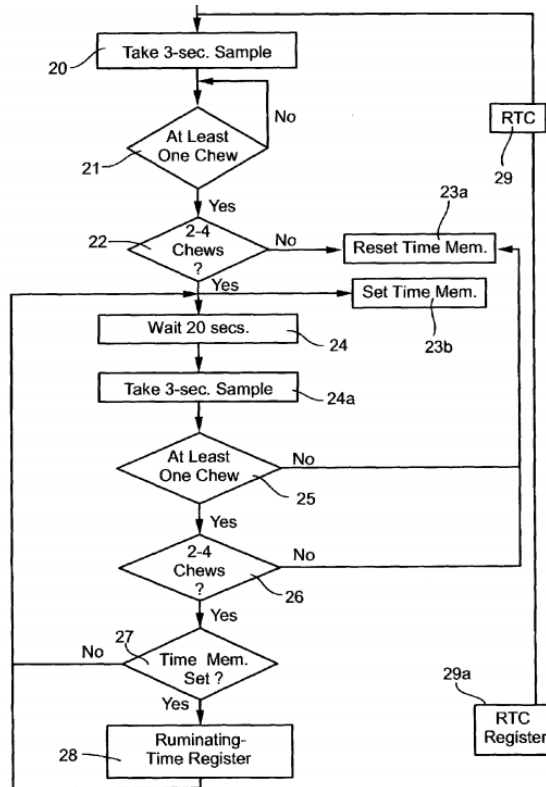
An infringement analysis requires a two-step process: construing the claims and then comparing the properly construed claims to the accused product. *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009). Construing means-plus-function claim terms also follows a two-step process. First, the claimed function must be identified, and then any structure disclosed in the specification corresponding to the claimed function must be determined. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015). “Regarding questions of claim construction, including whether claim language invokes 35 U.S.C. § 112, para. 6, the district court’s determinations based on evidence intrinsic to the patent as well as its ultimate interpretations of the patent claims are legal questions that we review de novo.” *Id.* (citing *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 840–41 (2015)). “To the extent the district court, in construing the claims, makes underlying findings of fact based on extrinsic evidence, we review such findings of fact for clear error.” *Id.*

#### I. Rumination Patent

On appeal, VocalTag disputes the district court’s determination of corresponding structure for the “sensor”

and “data processor” claim limitations and consequent finding of no infringement. VocalTag does not, however, dispute the district court’s determination that these claim limitations are in means-plus-function format. Nor does VocalTag dispute the district court’s interpretation of the claimed function.

We first consider the proper construction of the “data processor” limitation. While the parties agree with the district court’s determination that the algorithms in Figures 8 and 11 of the ’481 patent are corresponding structure for the claimed “data processor,” VocalTag faults the district court for excluding the algorithm in Figure 6 as additional corresponding structure. This algorithm is depicted below:



'481 patent, Fig. 6. Agis counters that the Figure 6 algorithm lacks a step for determining the time of each chew as required by the claimed function, unlike the algorithms in Figures 8 and 11, which include specific steps for determining the time (or duration) of each chew.

We agree with VocalTag that the district court erred by excluding the Figure 6 algorithm as corresponding structure. Although the determination of the time of each chew is not made explicit in Figure 6, the specification explains that the Figure 6 algorithm “determin[es] whether the detected chewing sounds . . . are ruminating activities or eating activities . . . by determining the rhythm (e.g., *duration* and frequency) of the chewing sounds at time-spaced intervals . . .” ’481 patent col. 5 ll. 14–20 (emphasis added). Thus, in view of the explanation in the specification, the Figure 6 algorithm provides corresponding structure for the claimed function of the “data processor” of determining the time and number of chewing actions for a predetermined time interval.

Nevertheless, we agree with the district court’s determination that the accused CowManager system does not infringe the asserted claims of the ’481 patent. VocalTag’s infringement evidence is directed to whether the accused system performs the claimed function—determining the time and number of chewing actions. But to demonstrate infringement of a means-plus-function claim limitation, a patentee must also show that the accused device has the same or equivalent structure as the corresponding structure disclosed in the specification. *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333 (Fed. Cir. 2006) (“Literal infringement of a means-plus-function claim limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification.”). While VocalTag asserts that the CowManager system can detect the time and number of chewing ac-



tions, VocalTag has not presented any evidence or argument suggesting that the CowManager system uses the same or equivalent algorithm as any of the algorithms in Figure 6, 8, or 11 of the '481 patent. We therefore affirm the district court's grant of summary judgment of noninfringement with respect to the asserted claims of the '481 patent. Because we resolve infringement of the rumination patent on the "data processor" limitation, we do not reach the district court's construction of the corresponding structure for the claimed "sensor" limitation.

## II. Estrus Patent

VocalTag challenges the district court's construction of the claim limitation "attenuating the energy level of the acceleration signal as an indication of eating is stronger" (the "attenuation" limitation), as well as the district court's determination that the accused CowManager system does not meet this limitation. The district court construed this limitation as "requir[ing] that the energy level of the signal from the acceleration sensor be reduced in proportion to the strength of the indication that the animal is eating." J.A. 25. VocalTag proposes this term be construed as "the microprocessor statistically reduces the value of the acceleration signal when the indication of the animal's eating increases." Appellant Br. 56 (emphasis omitted).

Turning first to claim construction, VocalTag disputes the district court's construction because it believes the construction improperly imposes a requirement that attenuation occur during transmission of the signal rather than in the microprocessor. According to VocalTag, the construction imposes this requirement because it states "energy level of the signal *from the acceleration sensor*." *Id.* at 51. But VocalTag misinterprets the construction. The phrase "energy level of the signal from the acceleration sensor" identifies the acceleration sensor as the source of the signal. It does not, as VocalTag contends,

require the attenuation to occur during transmission of the signal rather than in the microprocessor. Rather, the court's construction comports with the full context of the claim language, which describes the acceleration signal element as being "produced by the acceleration sensor." '149 patent col. 9 l. 4. Thus, we see no error with this aspect of the district court's construction.

VocalTag also challenges the district court's inclusion of a proportionality requirement in its construction of the attenuation limitation. We agree with VocalTag that the district court erred by requiring the claimed attenuation to be "in proportion to" the strength of the indication that the animal is eating. But as even VocalTag acknowledges with its proposed construction, the claimed attenuation must occur when the indication of the animal's eating increases. *See* Appellant Br. 56

Despite the district court's improper imposition of a proportionality requirement, we affirm its grant of summary judgment of noninfringement. Evidence of attenuation alone is not sufficient to demonstrate infringement; instead, VocalTag was required to present evidence that attenuation occurs when the indication of the animal's eating increases. VocalTag points to various statistical calculations performed by the CowManager system as evidence of attenuation. The record evidence, however, does not show that the purported attenuation performed by the accused system occurs in response to an increase in the indication of the animal's eating. To the contrary, it is undisputed that the CowManager system performs the same statistical analysis on every data set it collects. As such, we affirm the district court's grant of summary judgment of noninfringement of the asserted claims of the '149 patent.

#### CONCLUSION

For the foregoing reasons, we affirm the district court's grant of summary judgment that Agis's CowMan-

ager system does not infringe the asserted claims of the '481 and '149 patents, as well as its grant of summary judgment of no willful infringement.

**AFFIRMED**