

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DONG GUAN LEAFY WINDOWWARE CO. LTD.,  
Petitioner,

v.

ANLI SPRING CO., LTD. and  
HSIEN-TE HUANG,  
Patent Owner.

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PGR2020-00001  
Patent 10,174,547 B2

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Before GEORGE R. HOSKINS, MICHAEL L. WOODS, and  
SCOTT C. MOORE, *Administrative Patent Judges*.

HOSKINS, *Administrative Patent Judge*.

PRELIMINARY GUIDANCE  
PATENT OWNER'S MOTION TO AMEND

## I. INTRODUCTION

On April 20, 2020, we instituted a trial as to claims 1–4 of U.S. Patent No. 10,174,547 B2 (“the ’547 patent”). Paper 7 (“Institution Decision”). Subsequently, Patent Owner filed a contingent Motion to Amend. Paper 18 (“Motion” or “Mot.”). Should we find in a Final Written Decision that claims 2 and 4 of the ’547 patent are unpatentable, Patent Owner proposes replacing claims 2 and 4 with respective substitute claims 5 and 6. Mot. 3, Claims App. Patent Owner requests that we provide Preliminary Guidance on the Motion in accordance with the Board’s pilot program concerning motion to amend practice and procedures. *Id.* at 4; *see also* Notice Regarding a New Pilot Program Concerning Motion to Amend Practice and Procedures in Trial Proceedings under the America Invents Act before the Patent Trial and Appeal Board, 84 Fed. Reg. 9,497 (Mar. 15, 2019) (providing a patent owner with the option to receive preliminary guidance from the Board on its motion to amend) (“Notice”). Petitioner filed an Opposition to the Motion. Paper 20 (“Opposition” or “Opp.”).

In this Preliminary Guidance, we provide information indicating our preliminary, non-binding review of whether Patent Owner has shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements associated with filing a motion to amend in a post-grant review, and whether there is a reasonable likelihood that the proposed substitute claims are unpatentable. *See* 35 U.S.C. § 326(d); 37 C.F.R. § 42.221; *Lectrosonics, Inc. v Zaxcom, Inc.*, IPR2018-01129, Paper 15 (PTAB Feb. 25, 2019) (precedential); *see also* Notice, 84 Fed. Reg. at 9,497 (“The preliminary guidance . . . provides preliminary, non-binding guidance from the Board to the parties about the [motion to amend].”). In a Final Written Decision, if we determine claims 2 and 4 of the ’547 patent are unpatentable, then we will further determine whether the proposed substitute

claims 5 and 6 are unpatentable by a preponderance of the evidence based on the entirety of the record, including any opposition made by Petitioner. *Lectrosonics*, Paper 15 at 4.

For purposes of this Preliminary Guidance, we focus on the proposed substitute claims, and specifically on the amendments proposed in the Motion. *See* Notice, 84 Fed. Reg. at 9,497. We do not address the patentability of the originally challenged claims. *Id.* Moreover, in formulating our preliminary views on the Motion and Opposition, we have not considered the parties' other substantive papers on the underlying merits of Petitioner's challenges. We emphasize that the views expressed in this Preliminary Guidance are subject to change upon consideration of the complete record, including, if applicable, any revision to Patent Owner's Motion. Thus, this Preliminary Guidance is not binding on the Board when rendering a final written decision. *See id.* at 9,500.

## II. PRELIMINARY GUIDANCE

### A. Statutory and Regulatory Requirements

For the reasons discussed below, at this stage of the proceeding, and based on the current record, Patent Owner does not appear to have shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements under 35 U.S.C. § 326(d) and 37 C.F.R. § 42.221(a) associated with filing a motion to amend for proposed substitute claims 5 and 6.

#### 1. Reasonable Number of Substitute Claims

<b>Does Patent Owner propose a reasonable number of substitute claims? (35 U.S.C. § 326(d)(1)(B))</b>
<b>Yes.</b> Patent Owner proposes to replace each of challenged claims 2 and 4 with one of respective proposed substitute claims 5 and 6. Mot. 3, 13, Claims App. One substitute claim per challenged claim is presumed to be

reasonable. 37 C.F.R. § 42.221(a)(3) (“The presumption is that only one substitute claim would be needed to replace each challenged claim, and it may be rebutted by a demonstration of need.”); *Lectrosonics*, Paper 15 at 4. Petitioner does not contest whether Patent Owner’s proposed number of substitute claims is reasonable. *See generally* Opp.

## 2. Respond to Ground of Unpatentability

### **Does the Motion respond to a ground of unpatentability involved in the trial? (37 C.F.R. § 42.221(a)(2)(i))**

**Yes.** Patent Owner presents the amendments in proposed substitute claims 5 and 6 in response to Petitioner’s indefiniteness ground of unpatentability for original claims 2 and 4. *See* Mot. 15, 22.

In particular, Patent Owner asserts that by reciting “a ratio . . . is 4:1,” proposed substitute claims 5 and 6 address the issue raised in the Petition and the Institution Decision of whether original claims 2 and 4 recite a range of ratios. *See id.* at 15–17, 22–24. Patent Owner further asserts that by reciting “the unequal-torque coil spring generates a maximum feedback torque value and a minimum feedback torque value” and “a ratio of the maximum and the minimum feedback torque values is 4:1,” proposed substitute claims 5 and 6 address the issue raised in the Petition and the Institution Decision as to which torque values are used to calculate the ratio in original claims 2 and 4. *See id.* Accordingly, the amendments respond to a ground of unpatentability involved in the trial. Petitioner does not contest Patent Owner’s arguments on this point. *See generally* Opp.

## 3. Scope of Amended Claims

### **Does the amendment seek to enlarge the scope of the claims? (35 U.S.C. § 326(d)(3); 37 C.F.R. § 42.221(a)(2)(ii))**

**No.** Patent Owner’s proposed substitute claims 5 and 6 appear to include narrowing limitations as compared to the original claims. *See* Mot. 13–14, Claims App. In particular, the Motion would not change the scope of the independent claims. *See id.* Petitioner does not contest Patent Owner’s arguments on these points. *See generally* Opp.

4. New Matter

**Does the amendment seek to add new subject matter?**  
**(35 U.S.C. § 326(d)(3); 37 C.F.R. § 42.221(a)(2)(ii))**

**Yes.** On the current record, Patent Owner does not appear to have identified adequate written description support for the amendments in proposed substitute claims 5 and 6.

For written description support of proposed substitute claims 5 and 6, Patent Owner relies on the Specification of U.S. Patent Application No. 15/439,313 (“the U.S. application”), which issued as the ’547 patent. *See* Mot. 11–12 (citing Ex. 2016<sup>1</sup>, 30, 32–34, 36, 47–48, 54–57, 60). In particular, Patent Owner asserts that “[t]he Specification repeatedly describes locations or positions of the reed strip that provide torque values that are maximum and minimum.” *Id.* at 20. “Further, the Specification specifically describes that the ratio between the torque forces (e.g., the maximum and the minimum (smallest)) is 4:1.” *Id.* Patent Owner also relies on “explicit support for the amendments” being “provided by Taiwan Patent Application TW105204038U [‘the Taiwan application’], from which the ’547 patent claims priority.” *Id.* at 20–21.

Petitioner contends that the limitation “generates a maximum feedback torque value and a minimum feedback torque value” in proposed substitute claims 5 and 6 lacks written description support. *See* Opp. 2–4. Petitioner also contends that the limitation “a ratio of the maximum and the minimum feedback torque values is 4:1” in both proposed substitute claims lacks written description support. *See id.* at 5–6. Petitioner further contends Patent Owner cannot rely on the Taiwan application for written description support. *See id.* at 6–8.

The test for sufficiency of written description support under 35 U.S.C. § 112(a) is whether an application’s disclosure “reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). We perform “an objective inquiry into the *four corners* of the specification from the perspective of a person of ordinary skill in the art,” to determine whether it demonstrates possession of the claimed subject matter. *Id.* (emphasis added). We are not aware of

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<sup>1</sup> Exhibit 2016 is the prosecution history of the ’547 patent.

any legal authority that would permit Patent Owner here to rely on disclosures found in the Taiwan application, but not in the four corners of the U.S. application, to satisfy the written description requirement for proposed substitute claims 5 and 6.

The Taiwan application contains the following disclosure, in which the plain text also appears in the U.S. Application, but **the bolded text** does not appear in the U.S. Application: **“In addition, a maximum force and a minimum torque force values are determined according to the size of the curtain set 1, and** a ratio between the above-described torque forces can be set between 4:1.” Ex. 2019<sup>2</sup>, 12–13; Ex. 2016, 57 (lines 2–13). Thus, importantly, so far as we can tell on the present record, the U.S. application omits any specific discussion of minimum and maximum feedback torque force values in the context of a ratio between torque force values. *See generally* Ex. 2016, 43–63. Rather, the only descriptions of a ratio in the U.S. application are as follows: “A fourth objective of the present invention is to allow the unequal-torque coil spring to generate usable feedback torque values with a ratio between 4:1” (*id.* at 52); and “A ratio between the above-described torque forces can be set between 4:1” (*id.* at 57). Specifically concerning the latter description, because the U.S. application omits the bolded text, “the above-described torques” in the U.S. application refers back to torques TC and T1–T4, which are shown in Figures 9 and 12. *Id.* at 55 (line 12) – 57 (line 1), 92 (Fig. 9), 94 (Fig. 12).

This discrepancy between the Taiwan and U.S. applications, on the current record, appears to show an intent to disavow the disclosure in the Taiwan application that was omitted from the U.S. application—i.e., a description of determining minimum and maximum torque force values juxtaposed with a description of a ratio between torque forces. As we look only to the U.S. application for written description support for the proposed substitute claims, we do not consider the Taiwan application’s disclosure that is absent in the U.S. application.

We agree with Petitioner that there does not appear to be written description support for the limitation “a ratio of the maximum and the minimum feedback torque values is 4:1.” As quoted above, the U.S. application discloses that torque values can have “a ratio between 4:1.”

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<sup>2</sup> Citations herein to Exhibit 2019 refer to the pagination provided with the English translation of the Taiwan application.

Ex. 2016, 52; *see also id.* at 57 (“[a] ratio . . . between 4:1”). However, the U.S. application does not provide specific examples of which torque values can have a ratio “between 4:1.” *See id.* at 52, 57.

Further, the language “between 4:1” (*id.* at 52, 57) in the U.S. application (and in the Taiwan application, for that matter (Ex. 2019, 8, 13)) suggests a range of ratios, but does not actually provide a range. Given this lack of clarity, which is discussed in the Institution Decision (pages 21–24), it is not clear whether this language even demonstrates possession of the specific ratio 4:1 as Patent Owner appears to contend. Instead, one is left to guess what ratio(s) is or are being disclosed. For written description support, however, “the description ‘must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.’” *Ariad*, 598 F.3d at 1351 (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)). Based on the lack of clarity in the U.S. application on defining a ratio, it is not readily apparent to one of ordinary skill in the art that the applicant invented an unequal-torque coil spring where the ratio between any two feedback torque values is equal to 4:1.

We do not, however, agree with Petitioner that there is a lack of support for generating minimum and maximum feedback torque values (*see* Opp. 2–4), at least because the U.S. application describes an *unequal*-torque coil spring (*see, e.g.*, Ex. 2016, 43), which indicates that there must be some minimum and maximum values of feedback torque along the length of the spring. For example, the U.S. application discloses that “the fourth torque T4 . . . is less than the third torque T3; the load of the fourth torque T4 is the smallest” (*id.* at 60), and “the torque T2 provides the maximum torque for the lower beam 14” (*id.* at 59).

Nevertheless, at this stage, it appears Patent Owner has not set forth adequate written description support for proposed substitute dependent claims 5 and 6, for the reasons discussed above with respect to the limitation “a ratio of the maximum and the minimum feedback torque values is 4:1.”

B. Patentability<sup>3</sup>

For the reasons discussed below, based on the current record, it appears that Petitioner (or the record) has shown a reasonable likelihood that proposed substitute claims 5 and 6 are unpatentable.

**Does the record establish a reasonable likelihood that the proposed substitute claims are unpatentable?**

**Yes.** Based on the current record, it appears that there is a reasonable likelihood that proposed substitute claims 5 and 6 are unpatentable for the reasons discussed below.

We note that Patent Owner will have the opportunity to respond to the evidence cited in Petitioner’s Opposition and this Preliminary Guidance in a Reply or in a Revised Motion in this proceeding. *See* Notice, 84 Fed. Reg. at 9,499 (“The patent owner will then have an opportunity to revise its MTA after receiving the petitioner’s opposition and/or the preliminary guidance from the Board (if requested).”).

1. Written Description Support

**Yes.** On this record, it appears that Petitioner has demonstrated a reasonable likelihood of establishing proposed substitute claims 5 and 6 lack the requisite written description support under 35 U.S.C. § 112(a), for the reasons discussed above in Section II.A.4.

2. Indefiniteness

**No.** On this record, it appears that Petitioner has not demonstrated a reasonable likelihood of establishing proposed substitute claims 5 and 6 are indefinite under 35 U.S.C. § 112(b).

At this stage of the proceeding, we are not persuaded by Petitioner’s argument that “it is unclear how a[n] ‘unequal-torque coil spring’ *generates* a maximum and a minimum torque *value*.” Opp. 8. One of ordinary skill in the art would have recognized that the unequal-torque coil spring *generates* feedback torque because the “feedback torque is provided in response to requirements of unequal forces at a loading end.” Mot.,

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<sup>3</sup> We express no view on the patentability of original claims 1–4 in this Preliminary Guidance. Instead, we focus on limitations added to proposed substitute claims 5 and 6 in Patent Owner’s Motion to Amend.



Labeled Claims App. [1A]; *see also id.* [3I]–[3J]. For example, the ’547 patent describes the unequal-torque coil spring as being implemented in a spring motor “so as to provide a feedback force as multiple levels of torque in response to actual working requirements from a curtain system loading end capable of arranging a curtain at different heights.” Ex. 1001, 4:67–5:3. Moreover, the coil spring has at least a minimum feedback torque *value* and a maximum feedback torque *value* because there is a varying amount of measurable feedback torque along the length of the coil spring. *See* Mot., Labeled Claims App. [1G]–[1J] (“a first torque that . . . slowly increases”; “a second torque . . . equal to a maximum value of the first torque”; “a third torque that . . . gradually decreases”; “a fourth torque that . . . gradually decreases”); *see also id.* [3P]–[3S].

We are also not presently persuaded by Petitioner’s argument that “a POSITA cannot determine with reasonable certainty what qualifies as ‘a minimum feedback torque value’ in the substitute claims.” Opp. 9. One of ordinary skill in the art would have understood that the claimed minimum and maximum feedback torque values clearly relate to sections of the coil spring that are useable for providing feedback torque “in response to requirements of unequal forces at a loading end.” Mot., Labeled Claims App. [1A], [3J]. For example, Figure 12 of the ’547 patent shows a feedback torque curve with torque values at lengths along the coil spring corresponding to different heights of a lower beam of a curtain, with a maximum feedback torque value at L2, and a minimum feedback torque value at L5. *See* Ex. 1001, Fig. 12, 6:15–7:25.

Petitioner argues that “[i]f the minimum torque force refers to the minimum value of T4, it is unclear . . . what the minimum torque value of the fourth torque is.” Opp. 9. At this stage of the proceeding, this argument is not persuasive because the claims recite “a fourth torque that . . . gradually decreases is implemented between the fourth length and a fifth length.” Mot., Labeled Claims App. [1J], [3S]. Thus, the current record supports that one of ordinary skill in the art would have understood the minimum value of the fourth torque section to be at the fifth length, as the torque gradually decreases toward the fifth length.

Petitioner also argues that “if this minimum represents a global minimum value of the torque forces, there are torque values smaller than the ‘minimum’ value identified by Patent Owner.” Opp. 9. Specifically, with respect to Figure 12 of the ’547 patent, Petitioner argues that “the torque increases abruptly between travel length 0 and L1, and at least within [the

lower end of this] region, the torque value is smaller than the ‘minimum’ to[r]que identified by Patent Owner.” *Id.* at 9–10. This argument is not presently persuasive because proposed substitute claims 5 and 6 do not recite a global minimum value, but rather recite “a minimum feedback torque value.” Mot., Labeled Claims App. [5A], [6A]. A person of ordinary skill in the art would have understood “feedback torque” to be torque provided “in response to requirements of unequal forces at a loading end.” *Id.* [1A], [3J]. For example, in Figure 12 of the ’547 patent, sections of the coil spring between lengths L1 and L5—which correspond to the range of heights between H1 and H5 of a curtain’s lower beam 14—provide feedback torque in response to the variable load of the curtain because the “[t]orque required for curtain-folding is different between a first height H1 . . . and a fifth height H5.” Ex. 1001, 6:16–19; *see also id.* Fig. 12. One would not have considered sections of the coil spring that do not provide torque in response to the curtain’s variable load as providing feedback torque. For example, while the section of the coil spring from the joining end to L1 has associated torque values (*see id.* at 5:19–23, Figs. 9, 12), torque values of this section of the coil spring are not useable as feedback torque because the curtain’s lower beam 14 is returned to its top height H1 by torque T1 in the section of coil spring between L1 and L2 (*see id.* at 6:44–45 (“the first torque T1 is used to return the lower beam 14 to the first height”); *see id.* at Fig. 12). Accordingly, in proposed substitute claims 5 and 6, one of ordinary skill in the art would not have been confused as to whether the claimed “minimum feedback torque value” included some torque value that did not provide feedback torque. Rather, it is clear that “minimum feedback torque value” refers to the minimum value of the useable feedback torque of the coil spring.

Thus, at this stage and based on the current record, there is not a reasonable likelihood that proposed substitute claims 5 and 6 are indefinite under either the standard in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014) (“a patent is invalid for indefiniteness if its claims . . . fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention”) or *In re Packard*, 751 F.3d 1307, 1311 (Fed. Cir. 2014) (holding claims are properly rejected for indefiniteness when the USPTO makes un rebutted findings that claim language is “ambiguous, vague, incoherent, opaque, or otherwise unclear”).

PGR2020-00001  
Patent 10,174,547 B2

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