





**STARK, U.S. District Judge:**

Pending before the Court are the parties' claim construction disputes related to terms in U.S. Patent Nos. 6,082,616 (the "616 patent") and 7,832,631 (the "631 patent"). The parties submitted a joint claim construction brief (D.I. 105), exhibits (D.I. 86 Exs. A-H; D.I. 106 Exs. I-RR), and tutorials (D.I. 109, 110). The Court held a claim construction hearing on December 21, 2020, at which both sides presented oral argument.<sup>1</sup> (D.I. 117) ("Tr.")

## **I. LEGAL STANDARDS**

The ultimate question of the proper construction of a patent is a question of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 325-26 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). "It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal citation and quotation marks omitted). "[T]here is no magic formula or catechism for conducting claim construction." *Id.* at 1324. Instead, the Court is free to attach the appropriate weight to appropriate sources "in light of the statutes and policies that inform patent law." *Id.*

"[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." *Id.* at 1312-13 (internal citations and quotation marks omitted). "[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

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<sup>1</sup> The parties agree on the construction of two terms, and those agreed-upon constructions will be adopted by the Court. (*See* D.I. 86)

claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While “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. *Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent.” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide . . . . For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

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.

It bears emphasis that “[e]ven when the specification describes only a single embodiment, 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) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (alteration in original) (internal quotation marks omitted).

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), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the [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 . . . the district court 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*, 574 U.S. at 331. “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. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, 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.” *Id.* 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, while 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).

Finally, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (internal quotation marks omitted).

## II. CONSTRUCTION OF DISPUTED TERMS

### A. ’616 Patent

#### 1. “service opening”<sup>2</sup>

<b>Diebold</b> “an opening through which a component may be serviced”
<b>Hyosung</b> “an opening through which serviceable components are accessible for meaningful service, where the opening enables access to the serviceable components”  Alternatively, the term is indefinite.
<b>Court</b> “an opening through which a component may be serviced”

<sup>2</sup> This term appears in claims 1, 2, 5, 6, 7, 16, 20, 22, 26, 27, and 31 of the ’616 patent.

In construing this term, the Court has considered the International Trade Commission’s (the “ITC”) construction of the same term in the same patent during Section 337 Investigation No. 337-TA-972. (*See* D.I. 106 Ex. Q at 14-21, Ex. S at 6-9; *see also Texas Instruments, Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1569 (Fed. Cir. 1996) (“The district court can attribute whatever persuasive value to the prior ITC decision that it considers justified.”)) The parties have made reference to ITC proceedings in connection with other disputed terms and there, as well, the Court has considered the ITC’s analysis.

Defendants propose to add two limitations – a “meaningful service” limitation and that the service opening provides the “sole and exclusive means for access to serviceable components” – that are opposed by Plaintiffs. (*See* D.I. 105 at 4, 10-14, 19-21; *see also* Tr. at 30-31) The Court agrees with Plaintiffs.

With respect to the first issue, the parties are in agreement that the service conducted through the service opening must be real and meaningful; by agreement then, the “service” limitation is not satisfied by, for example, merely seeing or poking the serviceable components (without modifying or improving the function of the machine) through the service opening. (*See* D.I. 105 at 4; *see also* Tr. at 16) In the Court’s view, it follows that the Court’s construction of “service opening” need not define service. A POSA would understand what is and is not service, including from the other elements in the claim. (*See* D.I. 105 at 3-4; *see also, e.g.*, ’616 patent, cl. 1 (“[T]he serviceable component . . . is accessible from outside the housing by extending a tool upwardly through the service opening . . . .”)) For the same reason, Defendants have not met their burden to show, by clear and convincing evidence, that “service” is indefinite. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

Turning to the second issue, the Court agrees with Plaintiffs that nothing in the specification indicates that the service opening must provide the sole or exclusive means for access to the serviceable components, contrary to what is suggested by Defendants’ proposed limitation of “enables access.” (*See* D.I. 105 at 6) The serviceable components must be accessible through the service opening, *see, e.g.*, ’616 patent at 5:23-34 (“[T]he service points . . . *may be accessed* through opening 54 from underneath.”) (emphasis added), but the claims do not preclude the possibility that the serviceable components are also accessible in another manner. Defendants’ effort to identify a disclaimer of service openings that are not the

sole and exclusive manner of enabling service fails as they have not identified in the prosecution history any such “clear and unmistakable” disclaimer.<sup>3</sup> See *Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006). The references in that history to the service opening “enabling” service do not clearly and unmistakably state nor imply that the service opening is necessary in all instances to allowing service to occur.

2. **“the service opening is not accessible from outside the housing”<sup>4</sup> / “wherein the service opening becomes accessible by a tool from outside the housing when the tray is extended”<sup>5</sup> / “wherein the service opening becomes inaccessible from outside the housing”<sup>6</sup>**

<b>Diebold</b> Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b> “the service opening is blocked from outside the housing” / “wherein the service opening, which was blocked, now can be accessed by a tool from outside the housing when the tray is extended” / “wherein the service opening becomes blocked from outside the housing”
<b>Court</b> No construction necessary

The parties are in agreement that the service opening is accessible at the “first location” when the tray is extended and is inaccessible at the “second location” when the tray is retracted. (See D.I. 105 at 26, 28) Defendants contend that the claim scope is further limited in that the service opening is “blocked” because the patent “offers no other way of rendering the service

<sup>3</sup> For example, during the prosecution of the ’616 patent, the patentees stated that “service points *may* be located in positions . . . that are *generally* only accessible through the service opening.” (D.I. 86 Ex. E at 99) (emphasis added) During the IPR proceeding, although Plaintiffs stated that the service opening enables access to the serviceable components “that are not otherwise accessible,” they also stated in the same document that the service opening allows for “quick[] and eas[y]” access to the components. (D.I. 86 Ex. H at 2, 8) In totality, the Court does not find these statements amount to a “clear and unmistakable” disclaimer.

<sup>4</sup> This term appears in claims 1, 26, and 27 of the ’616 patent.

<sup>5</sup> This term appears in claim 20 of the ’616 patent.

<sup>6</sup> This term appears in claim 31 of the ’616 patent.

opening inaccessible.” (*Id.* at 28-29) The Court disagrees. If the service opening can be rendered “not accessible” or “inaccessible” by some manner other than “blocking,” that other manner has not been excluded from the scope of the claims.

The specification discloses an embodiment in which the service opening is blocked by the upper wall of the chest when the tray is retracted. (*See* ’616 patent at 4:66-5:3) However, there is no indication that the patentee intended for this “blocked” embodiment to be more than a preferred embodiment and to “more broadly describe the overall inventions.” *Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1348 (Fed. Cir. 2004). Thus, the description of the features in this embodiment does not limit the claims to that embodiment. *See Liebel-Flarsheim*, 358 F.3d at 913. That “blocked” does not constitute a “clear and unmistakable disclaimer” is further confirmed by the fact that it only appears in the abstract of the ’616 patent. *See Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1367-68 (Fed. Cir. 2012).

Having rejected Defendants’ effort to import the “blocked” limitation into the claims, the Court finds no further dispute to be resolved that requires a construction. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

3. **“a second position wherein the tray is generally within the interior area”<sup>7</sup> / “wherein the fascia generally covers the first opening when the tray is in the second position”<sup>8</sup> / “wherein the service opening is generally inaccessible from outside the housing and becomes accessible from outside the housing when the fascia is moved outward in supporting connection with the tray”<sup>9</sup>**

<b>Diebold</b>
Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b>
Indefinite

<sup>7</sup> This term appears in claim 27 of the ’616 patent.

<sup>8</sup> This term appears in claim 27 of the ’616 patent.

<sup>9</sup> This term appears in claim 31 of the ’616 patent.



**Court**

No construction necessary

Defendants have failed to show, by clear and convincing evidence, that the claims “fail to inform with reasonable certainty those skilled in the art about the scope of the invention.”

*Nautilus*, 572 U.S. at 901. Terms of degree or approximation are not inherently indefinite. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014). Such terms are definite when they provide “enough certainty to one of skill in the art when read in the context of the invention.” *Id.*; *see also Princeton Digital Image Corp. v. Amazon.com, Inc.*, 2019 WL 351258, at \*7-8 (D. Del. Jan. 29, 2019) (finding use of “generally” in claim terms not indefinite). “All that is required is some standard for measuring the term of degree.” *Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1346 (Fed. Cir. 2018).

Defendants contend that the claims are indefinite because the use of the term “generally” leaves a POSA with “no objective guidance or standards for measuring the scope of the ‘generally’ language at issue.” (D.I. 105 at 33) Plaintiffs counter that the specification does provide “some standard for measuring the scope of the phrase,” and that people skilled in the art, including Defendants’ own experts, have been applying this term “for years without any difficulty.” (*Id.* at 35) The Court agrees with Plaintiffs.

The ’616 patent discloses that when the tray is retracted into the housing, the service opening is not accessible from outside the housing. (’616 patent at 2:26-31) The ’616 patent explains that the reason why the rollout tray must be retracted is to “provide[] resistance to tampering as the service opening 54 is rendered inaccessible.” (*Id.* at 5:53-56) Hence, the specification provides something of an objective standard for “generally” measuring things about the opening; i.e., the tray and the fascia must be in a position that renders the serviceable components inaccessible from outside the housing and provides resistance to tampering.

Having found the claims not indefinite, the Court further finds there is no need to construe the terms. They are used consistent with their plain and ordinary meaning, and Defendants provided no competing constructions. *See generally United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (stating claim construction is matter of resolution of disputed meanings).

**4. “in supporting connection”<sup>10</sup>**

<b>Diebold</b> Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b> “connected to and supported by”
<b>Court</b> “connected to, by direct or indirect connection, and supported by”

At the hearing both sides agreed to the Court’s construction of this term. (*See Tr.* at 62-63)

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<sup>10</sup> This term appears in claims 1, 6, 7, 10, 26, 27, and 31 of the ’616 patent.

**B. '631 Patent**

1. “sensing through operation of at least one sensor in the machine, a width associated with the check”<sup>11</sup> / “sensing a width dimension associated with a magnetic coded record through operation of at least one width sensor”<sup>12</sup>

<p><b>Diebold</b> Plain and ordinary meaning. No construction is necessary.</p>
<p><b>Hyosung</b> “capturing data corresponding to the distance between the sides of a check through operation of at least one sensor in the machine” / “capturing data corresponding to the distance between the sides of a magnetic coded record through operation of at least one width sensor”</p>
<p><b>Court</b> “capturing data corresponding to at least one dimension or property which corresponds to a width associated with the check by at least one sensor in the machine, and determining the width using the captured data” / “capturing data corresponding to at least one dimension or property which corresponds to a width associated with a magnetic coded record by at least one width sensor, and determining the width using the captured data”</p>

Construction is necessary because the parties have a genuine dispute over claim scope. *See O2 Micro*, 521 F.3d at 1360. Defendants contend that the width sensor needs to capture the entire width<sup>13</sup> of a check (or a magnetic coded record) while Plaintiffs disagree. (*See* D.I. 105 at 43-44, 46-47) The Court agrees with Plaintiffs.

The claims and the specification indicate that the sensor is a part of the width-determining capability, but it does not need to capture the entire span of the width. The claims recite sensing a width “through operation of at least one (width) sensor,” which does not require that the sensor sense the width by itself. (*See* '631 patent, cls. 1, 17) The specification teaches that the width sensors “are operative to sense at least one dimension or property which

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<sup>11</sup> This term appears in claim 1 of the '631 patent.

<sup>12</sup> This term appears in claim 17 of the '631 patent.

<sup>13</sup> The parties agree that the term “width” in claim 1 and the term “width dimension” in claim 17 have the same meaning. (*See* Tr. at 78, 86)

corresponds to a width associated with a check;” and the capability of determining the width is achieved by “using signals from the sensor.” (*Id.* at 31:45-59)

In one disclosed embodiment, when a check is aligned with edge sensors, the width sensor only “determines [the] opposite edge of the check.” (*Id.*, Figs. 43 and 44) Defendants’ contention that this embodiment is covered only by claim 18 – and that claims 1 and 17 capture only a different embodiment, and not what is depicted in Figures 43 and 44 – is unpersuasive. (*See id.* at 5:35-36 (disclosing purportedly different embodiment appearing in separate section of specification with no detailed description of how width is sensed); *see also* D.I. 105 at 47) Claim 18’s use of “obtain” instead of “sense” does not support a different construction of the disputed terms because claim 18 describes the operation of the automated banking machine, not the sensor. (*See* D.I. 105 at 47, 54)

**2. “sensing micr line data on the check”<sup>14</sup>**

<b>Diebold</b> Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b> “capturing the characters of the micr line”
<b>Court</b> “capturing signals corresponding to micr line data on the check”

Defendants insist that the “micr line data” in claim 1 must have a different scope from the term “micr line magnetic data” in claim 18. (*See* D.I. 105 at 59) The Court disagrees. The general rule that “there is a difference in meaning and scope when different words or phrases are used in separate claims” is not inflexible. *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1409-10 (Fed. Cir. 2004) (internal quotation marks omitted). “Where neither the plain

<sup>14</sup> This term appears in claim 1 of the ’631 patent.

meaning nor the patent itself commands a difference in scope between two terms, they may be construed identically.” *Id.* at 1410.

Here, the specification discloses that “at least one of the magnetic read heads will be positioned to capture signals corresponding to micr line indicia on the check.” (’631 patent at 5:52-54) There is no indication in the specification that the “signals corresponding to micr line indicia” exclude “micr line magnetic data” and only encompass “characters of the micr line.” The Court’s construction reflects its rejection of this contention of Defendants.

**3. “facing position[s]”<sup>15</sup>**

<b>Diebold</b> “any of the up, down, forward, and backward positions”
<b>Hyosung</b> This term should be construed in the context of the larger phrase, “regardless of a facing position”
<b>Court</b> This term will be construed in the context of the larger phrase, “regardless of a facing position”

The Court will construe this term together with the next term. There is apparently no dispute with respect to the construction of this term in claims 5, 6, and 18, in which the claims explicitly recite “*four* possible facing positions” or “*four* facing positions.” (*See* D.I. 105 at 65; *see also* ’631 patent, cls. 5, 6, 18) (emphasis added) The parties’ only dispute is about the construction of this term in the context of the larger phrase “regardless of a facing position,” which appears in claims 1 and 17. (*See* Tr. at 102, 105)

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<sup>15</sup> This term appears in claims 1, 5, 6, 17, and 18 of the ’631 patent.

4. “regardless of a facing position”<sup>16</sup>

<b>Diebold</b> Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b> “in any of four possible facing positions with the short edge leading and any of four possible facing positions with the long edge leading”
<b>Court</b> “in any of the four possible facing positions: forward direction or backward direction, and right side up or upside down”

The parties dispute whether the term encompasses four facing positions, as Plaintiffs contend is required by both the claim language and the specification, or eight possible facing positions, as Defendants argue a POSA would understand. (*See* D.I. 105 at 66-71) The Court agrees with Plaintiffs.

The specification discloses that when a check passes through the invented device, there are four possible facing positions, depending on which the micr line data is moving in forward direction or backward direction, and right side up or upside down when it passes in proximity to the one adjacent magnetic read head. ('631 patent at 31:24-27, 32:27-31) Both claims 1 and 17 have a limitation requiring that the micr line (or the magnetic indicia) be aligned with one of the magnetic read heads, which, consistent with the specification, is only possible when the micr line (or the magnetic indicia) is placed in the direction along the direction the check is moving. (*See* D.I. 105 at 70-71) Only the four facing positions disclosed in the specification satisfy this requirement. The additional four positions Defendants would extend the claims to involve the micr line (or the magnetic indicia) being placed in a perpendicular direction relative to the moving direction of the check, making it impossible to align with one of the magnetic read heads.

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<sup>16</sup> This term appears in claims 1 and 17 of the '631 patent.

5. “at least one dimensional feature”<sup>17</sup>

<b>Diebold</b> “either the length or width”
<b>Hyosung</b> “a feature related to either the length or width”
<b>Court</b> “a feature related to either the length or width”

The parties do not dispute that the term “dimensional feature” covers the length or width of a financial check. (*See* D.I. 105 at 74, 77) However, Defendants contend – and the Court agrees – that “dimensional feature” is not limited to just length and width. (*See id.* at 74) The specification of the ’631 patent discloses embodiments in which a sensor in an automated banking machine captures the information of a feature *related to* a dimension, but *not* the dimension itself. For example, the width sensor can “sense at least one dimension or property which corresponds to a width associated with a check.” (’631 patent at 31:48-50) Figures 43 and 44 of the ’631 patent depict an embodiment in which the width sensor only captures the opposite edge of a check, but not the entire width of the check.

Since the width sensor is a component of the automated banking machine, the “dimension feature” captured by the width sensor is also being obtained by the automated banking machine (of which the width sensor is a part). Thus, Plaintiffs’ argument that claim 18 is directed to the automated banking machine and not to the width sensor does not change the proper construction of the “dimension feature” term. (*See* D.I. 105 at 76-77)

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<sup>17</sup> This term appears in claim 18 of the ’631 patent.

6. “mounted in a fixed position relative to the transport path”<sup>18</sup>

<b>Diebold</b> Plain and ordinary meaning. No construction is necessary.
<b>Hyosung</b> “immovable in all directions but the direction of the transport path”
<b>Court</b> No construction necessary

The parties agree that the magnetic read head is immovable in the transverse direction relative to the transport path. (*See* D.I. 105 at 78-79; Tr. at 116) Defendants, primarily relying on the dictionary meaning of “fixed,” argue that the magnetic read head also cannot move vertically. (*See* D.I. 105 at 79-80) The Court agrees with Plaintiffs that this restriction is not supported. Embodiments in which the read head can move vertically may be within the scope of the claim.

The specification differentiates whether the magnetic read head is fixed or movable solely with regard to the transverse movement. (*See* ’631 patent at 31:15-37) There is no disclosure in the specification of the vertical movement of the magnetic read head being restricted. Defendants have pointed to no persuasive basis to conclude that POSA would understand the terms in the manner they propose. Having rejected the limitation on the vertical movement, there is no further dispute needing to be resolved by a construction.

### III. CONCLUSION

The Court will construe the disputed terms as explained above. An appropriate Order follows.

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<sup>18</sup> This term appears in claim 5 of the ’631 patent.