

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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SZ DJI TECHNOLOGY CO., LTD. and DJI	:	
EUROPE B.V.,	:	
	:	
Plaintiffs-Counterclaim Defendants,	:	
	:	
v.	:	C.A. No. 16-706-LPS
	:	
AUTEL ROBOTICS USA LLC and AUTEL	:	
AERIAL TECHNOLOGY CO., LTD.,	:	
	:	
Defendants-Counterclaim Plaintiffs.	:	

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**MEMORANDUM OPINION**

December 16, 2019  
Wilmington, Delaware



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

Plaintiffs-Counterclaim Defendants SZ DJI Technology Co., Ltd., DJI Europe B.V., and DJI Technology Inc. (collectively, “DJI”) filed suit against Defendants-Counterclaim Plaintiffs Autel Robotics USA LLC and Autel Aerial Technology Co., Ltd. (collectively, “Autel”) on August, 11, 2016, alleging infringement of U.S. Patent Nos. 9,016,617 (the “’617 Patent”), 9,284,049 (the “’049 Patent”), 9,321,530 (the “’530 Patent”), and D691,514 (the “D’514 Patent”). (D.I. 1) The patents-in-suit relate to technology and operation of unmanned aerial vehicle (“UAV”) products.

Presently before the Court is the issue of claim construction. The parties completed briefing on July 29, 2019. (D.I. 359, 361, 374, 377) The parties’ submissions included expert declarations and excerpts of expert reports. (D.I. 360, 362, 375, 378, 379) The Court held a claim construction hearing on October 3, 2019. (D.I. 407)

## **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.*, 135 S. Ct. 831, 837 (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) (citation and internal 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 claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptoronic, 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*, 135 S. Ct. at 841. “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) (citing *Vitronics*, 90 F.3d at 1583).

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) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

## II. CONSTRUCTION OF DISPUTED TERMS<sup>1</sup>

### A. “The ornamental design for a rotor aircraft, substantially as shown and described”<sup>2</sup>

<p><b>Plaintiff</b></p> <p>Plain and ordinary meaning.</p> <p>Alternatively, “the ornamental design for a rotor aircraft, substantially as shown and described in Figures 1-7.”</p>
<p><b>Defendant</b></p> <p>Indefinite.</p> <p>Alternatively, “a full monocoque quadcopter having: a cruciform housing having four branches that flare to meet one another to form a central body; the logo depicted in Figure 5; a rectangular battery compartment cover on the front side of the central body of the aircraft; a round light on the back side of the central body of the aircraft; two relatively dark stripes on each of the front branches; indicator lights along the underside of the branches between the rotors and the central body; and four substantially parallel legs that include an inward curve near where they attach to the central body and that include front-to-rear crossbars at the bottom of the legs.”</p>
<p><b>Court</b></p> <p>“The ornamental design for a rotor aircraft, substantially as shown and described in Figures 1-7.”</p>

Autel argues that the D’514 Patent is invalid because it fails to distinguish between claimed ornamental and unclaimed functional features, the design is primarily functional rather than ornamental, and a POSA would not be able to determine whether the design of another UAV is “substantially” similar to the claimed features of the D’514 Patent. (D.I. 361 at 10; D.I.

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<sup>1</sup> An additional term not discussed in this Opinion was briefed – “wherein [each actuator assembly/the actuator of each actuator assembly] is (1) partially within a branch cavity of a corresponding branch housing member, [and] (2) partially extending from the branch cavity of the corresponding branch housing member.” The term appears in claims 16 and 21 of the ‘049 Patent. Before the hearing, the parties agreed that no construction is necessary and that Autel would not argue that the term is indefinite. (D.I. 402)

<sup>2</sup> This term is the entirety of the sole claim of the D’514 Patent.

377 at 2) Autel argues that the figures in the patent fail to distinguish between the claimed design and the embodying article or ornamental features. (D.I. 361 at 12; D.I. 377 at 2-3)

Photographs as well as drawings are accepted by the USPTO. *See, e.g.*, 37 C.F.R. § 1.84.<sup>3</sup> In particular, as Autel concedes (D.I. 361 at 12), photographs are acceptable in a design patent if they “are the only practicable medium for illustrating the claimed invention,” 37 C.F.R. § 1.84. Here, the figures in the D’514 Patent are appropriate, as the patent claims all ornamental aspects of the claimed design.

The D’514 Patent does not attempt to claim functional elements; rather it claims a design that happens to have function. The design is not governed solely by function, as the design is not the only possible form of the article that could perform its function. Indeed, DJI points to many other possible designs that would perform the same function (*see, e.g.*, D.I. 359 at 11; Braasch Decl. ¶¶ 29-39), and Autel’s expert concedes that alternative designs exist (Eby Decl. ¶ 29). The availability of alternative designs is “an important – if not dispositive – factor in evaluating the legal functionality of a claimed design.” *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1329-30 (Fed. Cir. 2015); *see also L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993) (“When there are several ways to achieve the function of an article of manufacture, the design of the article is more likely to serve a primarily ornamental purpose.”).

Autel’s focus on individual elements of the D’514 Patent is misplaced. “[T]he overall appearance of the article – the claimed design viewed in its entirety – is the basis of the relevant inquiry, not the functionality of elements of the claimed design viewed in isolation.” *Ethicon*,

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<sup>3</sup> In Autel’s opening brief, it refers to the images as “photographs” (D.I. 361 at 12-13), but DJI refers to them as “CAD drawings” (D.I. 359 at 10; D.I. 374 at 5). Regardless, the analysis is the same.

796 F.3d at 1329. “[T]he utility of each of the various elements that comprise the design is not the relevant inquiry with respect to [validity of] a design patent.” *Id.* at 1329; *see also Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 679-80 (Fed. Cir. 2008) (cautioning courts of risks of “attempt[ing] a verbal description of the claimed design, . . . such as the risk of placing undue emphasis on particular features of the design and the risk that a finder of fact will focus on each individual described feature in the verbal description rather than on the design as a whole”).

“[A] design patent is indefinite under § 112 if one skilled in the art, viewing the design as would an ordinary observer, would not understand the scope of the design with reasonable certainty based on the claim and visual disclosure.” *In re Maatita*, 900 F.3d 1369, 1377 (Fed. Cir. 2018). Autel has failed to establish by clear and convincing evidence that the D’514 Patent is indefinite.

Still, the Court agrees with Autel that some construction is warranted and adopts DJI’s proposal. Rather than “treat the process of claim construction as requiring a detailed verbal description of the claimed design,” *Skechers U.S.A., Inc. v. Eliya, Inc.*, 2017 WL 3449594, at \*2 (C.D. Cal. Mar. 14, 2017), the Court is persuaded that term should be construed as “the ornamental design for a rotor aircraft, substantially as shown and described in Figures 1-7.”

**B. “a position sufficiently distal . . . to effect a reduction of interference”<sup>4</sup>**

<b>Plaintiff</b>
Plain and ordinary meaning. Alternatively, “a position sufficiently away . . . to reduce interference.”
<b>Defendant</b>
Indefinite.
<b>Court</b>
“A position sufficiently away . . . to reduce interference.”

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<sup>4</sup> This term appears in claim 1 of the ‘617 Patent and claim 1 of the ‘530 Patent.



Under 35 U.S.C. § 112, “a patent’s claims, viewed in light of the specification and prosecution history, [must] inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014); *see also Cox Commc’ns, Inc. v. Sprint Commc’n Co. LP*, 838 F.3d 1224, 1231 (Fed. Cir. 2016) (noting relevant inquiry is “whether the ‘claims,’ not particular claim terms” inform one of scope with reasonable certainty). “Indefiniteness must be proven by clear and convincing evidence.” *Sonix Tech. Co., Ltd. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

Terms of degree or approximation are not inherently indefinite. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014) (“[A]bsolute or mathematical precision is not required.”). Such terms have been found definite where they provide “enough certainty to one of skill in the art when read in the context of the invention.” *Id.* “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).

Autel argues that a POSA would not be able to discern objective boundaries because the patent provides no objective guidance as to (i) the placement of the magnetometer, (ii) how to measure the reduction of interference, or (iii) how much reduction is required. (D.I. 361 at 15; D.I. 377 at 6-9) DJI counters that a POSA would understand that the position of the magnetometer depends on the relative variable placement of other components that may radiate, conduct, distort, or otherwise interfere with magnetic fields. (D.I. 359 at 11-12) In addition, both patents disclose examples of (i) the placement of the magnetometer; (ii) how to measure a reduction in interference; and (iii) the desired amount of reduction of interference. (D.I. 359 at 12) Autel contends that neither the claims nor the specification defines the manner in which reduction is to be measured, and the scope of the term is not limited to the measures disclosed in

the examples, which represent large ranges. (D.I. 377 at 7-9) If anything, according to Autel, the examples serve to illustrate that the scope of the term covers (i) any possible distance between the magnetometer and other electrical components; (ii) any possible measure of interference; and (iii) any possible reduction of interference. (D.I. 377 at 7-9)

Autel has not shown by clear and convincing evidence that the term is indefinite. The specification teaches that the meaning of the term may vary depending on certain conditions, such as the placement of electrical components other than the magnetometer. (*See, e.g.*, ‘617 Patent at 13:56-61; ‘530 Patent at 13:62-67 (“In various embodiments, the threshold value the minimum and/or maximum distance may be determined based at least in part on the shape and/or dimensions of the UAV, the characteristics of the interference-generating electrical components and the characteristics of the interference-susceptible sensor.”)) The breadth of DJI’s interpretation of its claims does not necessarily make the claims indefinite.

Autel may, after completion of fact and expert discovery and as a case-dispositive motion, again attempt to prove that the claim is indefinite.

**C. “at least about 3 cm”<sup>5</sup>**

<b>Plaintiff</b>
Plain and ordinary meaning.
<b>Defendant</b>
Indefinite.
<b>Court</b>
Plain and ordinary meaning.

Autel has failed to prove by clear and convincing evidence that the term “at least about 3 cm,” which is used to describe the minimum distance between the magnetometer and electrical

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<sup>5</sup> This term appears in claim 5 of the ‘617 Patent and claim 16 of the ‘530 Patent.

components, is indefinite. Imprecise language or words of approximation does not automatically render a claim indefinite. *See, e.g., BJ Servs. Co. v. Halliburton Energy Servs.*, 338 F.3d 1368, 1372 (Fed. Cir. 2003). Here, the Court is persuaded a POSA would understand with reasonable certainty, in light of the claims and the specification, what it means to place the magnetometer at least about 3 cm away from the electrical components to reduce any interference of the sensors from the electrical components. In context, a POSA would understand with reasonable certainty that the term refers to a necessary variance in the minimum distance between the magnetometer and electrical components (a distance that depends on, for example, the type and size of the UAV and specific electrical components).

**D. “a central cavity”<sup>6</sup>**

<p><b>Plaintiff</b></p> <p>Plain and ordinary meaning.</p> <p>Alternatively, “a space formed by the central body.”<sup>7</sup></p>
<p><b>Defendant</b></p> <p>“A single space formed by the upper housing member and the lower housing member that is centrally located within the central body.”</p>
<p><b>Court</b></p> <p>“A space formed by the central body.”</p>

DJI contends that Autel’s proposed construction is improper because (i) it attempts to import limitations from one independent claim into another independent claim; and (ii) the “single space” limitation is unsupported by the claim language. (D.I. 359 at 14-15) Specifically, claim 1 of the ‘049 Patent recites “a central body comprising an upper housing member and a lower housing member, the upper housing member and the lower housing member forming a

<sup>6</sup> This term appears in claims 1, 9, 12, 13, 16, and 24 of the ‘049 Patent.

<sup>7</sup> DJI initially proposed as its alternative construction “a centrally located space.” (D.I. 359 at 14)

central cavity.” Claim 16 recites “a central body comprising a central cavity,” without reference to an upper or lower housing member. Thus, according to DJI, it is inappropriate to add a limitation that the central cavity must be formed by the upper and lower housing members. (D.I. 359 at 15) DJI further contends that because “a” carries the meaning “one or more,” there is no reason that the central cavity could not be segregated into multiple cavities. Indeed, the specification discloses embodiments with multiple cavities. (D.I. 359 at 16)

Autel counters that, based on the configuration that is consistently and repeatedly described and shown in the patent, a POSA would understand the term to mean a single space formed by inner sides of the upper and lower housing members of the central body, which is, by necessity, a single space centrally located within the central body. (D.I. 377 at 11) Autel further argues that claim differentiation is inapplicable because the independent claims 1 and 16 are not otherwise identical in scope. (D.I. 377 at 11-12)

The Court agrees with DJI that Autel’s construction improperly reads additional limitations into the claims and improperly limits the claims to a particular embodiment. By contrast, DJI’s alternative construction is supported by the patent and claim construction law.

**E. “one or more electrical components (1) configured to control the operation of the UAV”<sup>8</sup>**

<b>Plaintiff</b> Plain and ordinary meaning. Alternatively, “one or more electrical components designed to control the movement of the UAV.”
<b>Defendant</b> “One or more electrical components designed to detect, maintain, or adjust the movement of the UAV.”
<b>Court</b> “One or more electrical components designed to control the movement of the UAV.”

The claim language refers to “electrical components” and the specification provides examples: “Such electrical components can include an energy source (e.g., battery), flight control or navigation module, GPS module (e.g., GPS receivers or transceivers), inertial measurement unit (IMU) module, communication module (e.g., wireless transceiver), electronic speed control (ESC) module adapted to control an actuator (e.g., electric motor), actuator(s) such as an electric motor used to actuate a rotor blade or rotor wing of the UAV, electrical wirings and connectors, and the like.” (‘049 Patent, 6:46-57)

The parties’ dispute appears to be whether the pertinent electrical components must “control” movement or must “detect, maintain, *or* adjust” movement (emphasis added). The Court agrees with DJI that the components being captured in this limitation must be involved in **control**. This follows from the clear claim language (“components . . . to control the operation of the UAV”). While “maintaining” and “adjusting” are likely required to “control movement,” it is not clear whether “detecting” is also required to “control.” Because Autel’s construction would allow this claim limitation to be satisfied by electrical components which do no more than

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<sup>8</sup> This term appears in claims 1, 2, 3, 9, 10, 16, 17, 18, and 24 of the ‘049 Patent.

“detect” movement of the UAV, it cannot be a correct construction of this “configured to control” term.

**F. “a branch cavity”<sup>9</sup>**

<b>Plaintiff</b> Plain and ordinary meaning. Alternatively, “a space formed by a branch housing member.”
<b>Defendant</b> “An empty space formed by the interior of the upper branch housing member and the interior of the lower branch housing member.”
<b>Court</b> “A space formed by a branch housing member.”

DJI argues that Autel’s construction is not consistent with the intrinsic evidence and improperly imports additional limitations expressly recited in other claims. (D.I. 359 at 18-20; D.I. 374 at 21-23) Specifically, DJI contends that Autel seeks to import the limitation of “the upper branch housing member and the lower branch housing member for a branch cavity within a corresponding branch housing member” from claim 7 into claim 16, although the latter claim recites “a branch cavity” and does not reference upper and lower branch housing members. (D.I. 359 at 18-19)

Autel counters that the “branch cavity” in claim 16 refers to the cavity formed by each of the “one or more branch housing members,” which, in turn, claim 16 defines as “each comprising an upper branch housing member and a lower branch housing member.” (D.I. 377 at 15; *see also* ‘049 Patent, cl. 16) Autel also points to claim 1, which similarly defines “branch housing members” as “each comprising an upper branch housing member and a lower branch housing member.” (D.I. 377 at 15; *see also* ‘049 Patent, cl. 1) Therefore, Autel argues, the

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<sup>9</sup> This term appears in claims 7, 16, and 21 of the ‘049 Patent.

“branch cavity” of the “branch housing members” must be formed from the upper and lower branch housing members. (D.I. 377 at 15) Autel further contends that the specification and figures also describe and illustrate that the “branch cavity” is a space formed by the interior of the upper branch housing member and the interior of the lower branch housing member, and each branch cavity is formed by the inner sides of the upper and lower branch housing members. (D.I. 377 at 16)

The Court agrees with DJI that Autel ignores that the patent does not require that every claimed embodiment have branch housing members consisting of two parts. (*See, e.g.*, ‘049 Patent, 7:5-7) (“Each of the branch housing members, in the shape of a hollow arm or any other suitable shape, can form a branch cavity.”) Moreover, the portion of the specification quoted by Autel merely indicates that “[i]n some embodiments” the branch housing “can” include upper and lower branch housing members; these features are not required.

**G. “wherein each actuator assembly . . . (3) has, beneath the actuator assembly, a portion of the lower branch housing member of the corresponding branch housing member”<sup>10</sup>**

<p><b>Plaintiff</b></p> <p>Plain and ordinary meaning.</p> <p>Alternatively, “wherein each actuator assembly . . . (3) has, beneath it, a portion of the lower branch housing member of the respective branch house member.”</p>
<p><b>Defendant</b></p> <p>“Wherein the lower branch housing member of the corresponding branch housing member has a portion that extends directly beneath and supports the weight of each actuator assembly.”</p>
<p><b>Court</b></p> <p>“Wherein each actuator assembly . . . (3) has, beneath it, a portion of the lower branch housing member of the respective branch house member.”</p>

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<sup>10</sup> This term appears in claim 16 of the ‘049 Patent.

The parties' dispute concerns what it means for "a portion of the lower branch housing member" to be "beneath the actuator assembly" and whether that portion must "support[] the weight of each actuator assembly."

Autel argues that "[t]he claims, specification and figures of the '049 Patent consistently describe and illustrate that the lower branch housing member extends directly beneath and supports the weight of each actuator assembly." (D.I. 377 at 21; *see also* D.I. 361 at 28-29) Autel points, for example, to claim 1, which recites that "one or more branch housing members are configured to support one or more actuator assemblies" and that "the upper branch housing members and the lower branch housing members are configured to extend to a length at least to support the one or more actuator assemblies." (D.I. 377 at 22; *see also* '049 Patent, cl. 1) Autel argues that because the same configuration is consistently and repeatedly described and shown in the '049 Patent, it is proper to construe the claim term accordingly. (D.I. 377 at 22) Further, Autel contends that a POSA would understand the term to mean that each lower branch housing member has a portion that extends directly beneath and supports the weight of each actuator assembly. (D.I. 377 at 22)

DJI counters that the requirement in Autel's proposed construction that the lower branch housing member have a portion that "supports the weight of each actuator assembly" is itself unsupported in either the claims or the specification. (D.I. 359 at 23; D.I. 374 at 26) Thus, Autel's proposed construction both arbitrarily narrows the scope of the claim and adds functional requirements to an otherwise structural claim, both of which are improper. (D.I. 359 at 23; D.I. 374 at 26) DJI also argues that Autel's proposed construction again imports limitations from other claims. (D.I. 359 at 23; D.I. 374 at 26) Specifically, claim 1 recites that "one or more branch housing members are configured to support one or more actuator assemblies" and that



“the upper branch housing members and the lower branch housing members are configured to extend to a length at least to support the one or more actuator assemblies.” But claim 16 has no such limitations, and it would be wrong to read them into claim 16. (D.I. 359 at 23)

Autel also points to the prosecution history, arguing that the Examiner must have understood the ‘049 Patent’s lower branch housing members to include a portion that extends beneath a portion of the actuator. (D.I. 361 at 29) Autel further argues that the Examiner allowed the claim over a prior art reference – U.S. Patent No. 8,973,861 (“Zhou”) – on the basis that this feature was absent from Zhou, in which the lower branch housing members “do not have a portion which extends beneath a portion of the actuator.” (D.I. 361 at 29-30; *see also* (D.I. 361, Ex. 1) (Notice of Allowance) at 3-4 (“The lower branch housing members of Zhou . . . do not have a portion which extends beneath a portion of the actuator, nor would it have been obvious to modify Zhou as such in light of the buckle arrangement as shown in figure 2B which is central to the inventive concept in Zhou.”)) Moreover, the Applicant’s failure to address the Examiner’s statement in the patent’s continuation applications suggests that the Applicant does not or cannot disagree with it. (D.I. 361 at 29) As to this prosecution history argument, DJI counters that the Examiner’s statement merely restates the language of the claim; neither the Examiner nor the prosecution history refers to the lower branch housing member extending “directly” beneath the actuator assembly. (D.I. 374 at 26)

The Court agrees with DJI. Neither the claims nor the specification supports a construction requiring the lower branch housing member to support the weight of each actuator assembly. Further, the Examiner’s statement does not reflect an understanding that the lower branch housing member extends “directly” beneath the actuator assembly. Nor does it reflect an understanding that the lower branch housing member supports the weight of each actuator

assembly. Thus, the Court agrees with DJI that Autel’s proposed construction improperly imports limitations from claim 16 into the language of claim 1.<sup>11</sup>

### III. CONCLUSION

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

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<sup>11</sup> Autel’s argument that its construction must be adopted to preserve the validity of the claim is unavailing. This doctrine applies where the correct construction is unclear and only one construction would preserve validity – not where the correct construction is clear, regardless of its effect on validity. *Compare Carman Indus., Inc. v. Wahl*, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983) (“Claims should be so construed, if possible, as to sustain their validity.”) *with Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999) (“[I]f the only claim construction that is consistent with the claim’s language and the written description renders the claim invalid, then the axiom does not apply and the claim is simply invalid.”).

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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SZ DJI TECHNOLOGY CO., LTD. and DJI	:	
EUROPE B.V.,	:	
	:	
Plaintiffs-Counterclaim Defendants,	:	
	:	
v.	:	C.A. No. 16-706-LPS
	:	
AUTEL ROBOTICS USA LLC and AUTEL	:	
AERIAL TECHNOLOGY CO., LTD.,	:	
	:	
Defendants-Counterclaim Plaintiffs.	:	

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**ORDER**

At Wilmington this **16th** day of **December, 2019**:

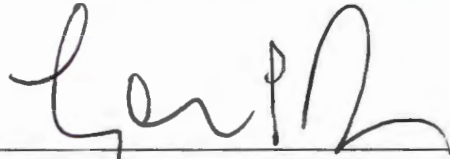
For the reasons set forth in the Memorandum Opinion issued this date,

**IT IS HEREBY ORDERED** that the following claim terms of U.S. Patent Nos. 9,016,617 (the “’617 Patent”), 9,284,049 (the “’049 Patent”), 9,321,530 (the “’530 Patent”), and D691,514 (the “D’514 Patent”) are construed as follows:

Claim Term	Court's Construction
<p><b>“The ornamental design for a rotor aircraft, substantially as shown and described”</b></p> <p>[sole claim of the D’541 Patent]</p>	<p>“The ornamental design for a rotor aircraft, substantially as shown and described in Figures 1-7.”</p>
<p><b>“a position sufficiently distal . . . to effect a reduction of interference”</b></p> <p>[claim 1 of the ‘617 Patent; claim 1 of the ‘530 Patent]</p>	<p>“A position sufficiently away . . . to reduce interference.”</p>
<p><b>“at least about 3 cm”</b></p> <p>[claim 5 of the ‘617 Patent; claim 16 of the ‘530 Patent]</p>	<p>Plain and ordinary meaning.</p>
<p><b>“a central cavity”</b></p> <p>[claims 1, 9, 12, 13, 16, and 24 of the ‘049 Patent]</p>	<p>“A space formed by the central body.”</p>
<p><b>“one or more electrical components (1) configured to control the operation of the UAV”</b></p> <p>[claims 1, 2, 3, 9, 10, 16, 17, 18, and 24 of the ‘049 Patent]</p>	<p>“One or more electrical components designed to control the movement of the UAV.”</p>
<p><b>“a branch cavity”</b></p> <p>[claims 7, 16, and 21 of the ‘049 Patent]</p>	<p>“A space formed by a branch housing member.”</p>
<p><b>“wherein each actuator assembly . . . (3) has, beneath the actuator assembly, a portion of the lower branch housing member of the corresponding branch housing member”</b></p> <p>[claim 16 of the ‘049 Patent]</p>	<p>“Wherein each actuator assembly . . . (3) has, beneath it, a portion of the lower branch housing member of the respective branch house member.”</p>
<p><b>“wherein [each actuator assembly/the actuator of each actuator assembly] is (1) partially within a branch cavity of a corresponding branch housing member, [and] (2) partially extending from the branch cavity of</b></p>	<p>Plain and ordinary meaning.</p> <p>[The Court notes the parties’ agreement regarding construction of this term. (D.I. 402) (“Defendants will not argue that [this term is] indefinite or require[s] construction by the Court.”)]</p>

**the corresponding branch housing member”**

[claims 16 and 21 of the ‘049 Patent]



UNITED STATES DISTRICT JUDGE