

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

KT IMAGING USA, LLC,
Plaintiff,

-v-

**REOLINK DIGITAL TECHNOLOGY
CO., LTD.,**
Defendant.

6:22-CV-00876-ADA

CLAIM CONSTRUCTION ORDER AND MEMORANDUM IN SUPPORT THEREOF

Before the Court are the Parties' claim construction briefs: Defendant Reolink Digital Technology Co., Ltd.'s Opening and Reply briefs (ECF Nos. 23 and 27, respectively) and Plaintiff KT Imaging, USA, LLC's Response and Sur-Reply briefs (ECF Nos. 24 and 31, respectively). The Court provided preliminary constructions for the disputed terms one day before the hearing. The Court held the *Markman* hearing on March 28, 2024. ECF No. 51. During that hearing, the Court informed the Parties of the final constructions for the disputed terms. *Id.* This Order does not alter any of those constructions.

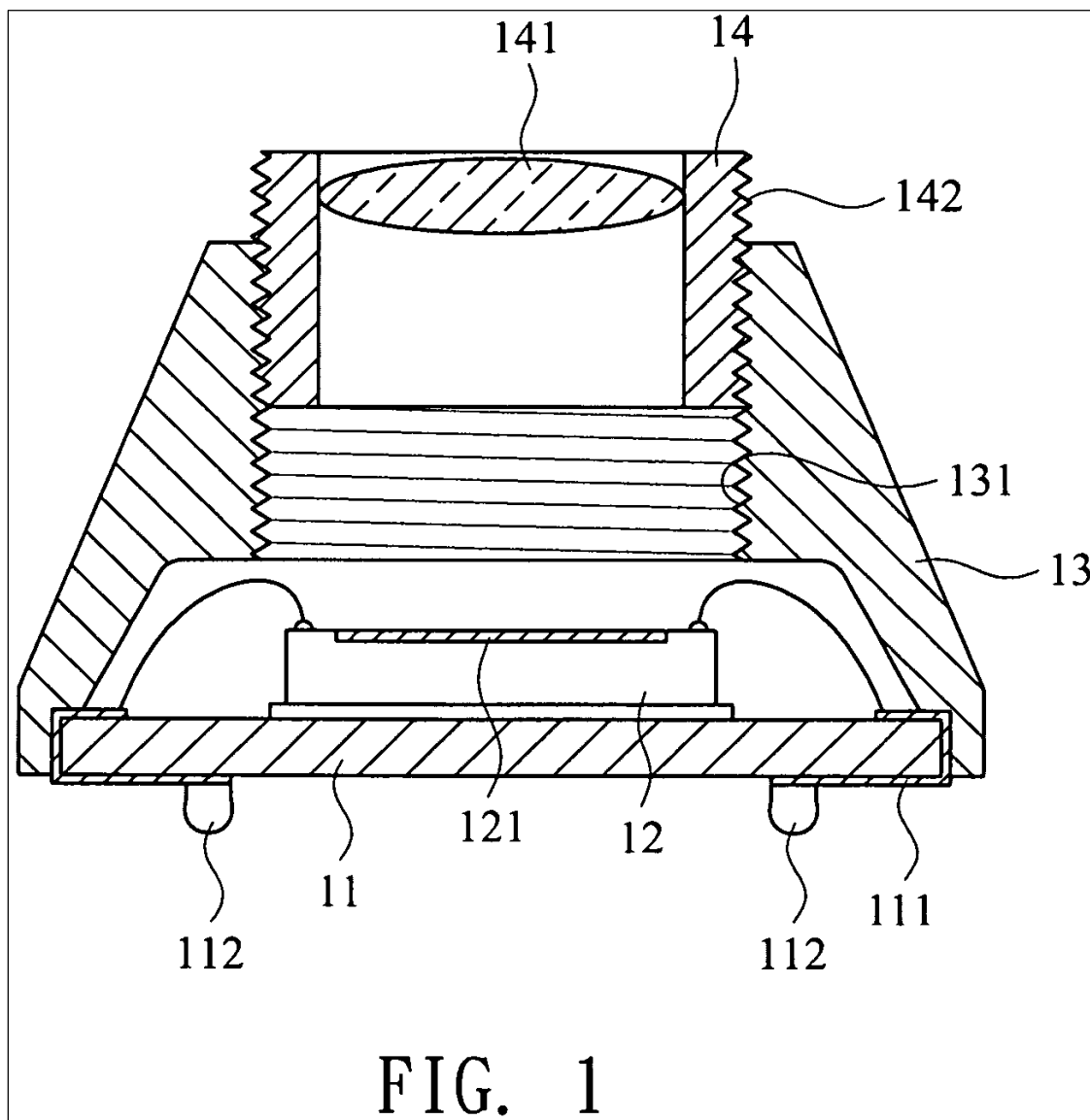
I. DESCRIPTION OF THE ASSERTED PATENTS

Plaintiff asserts U.S. Patent No. 8,004,602, which is entitled “Image sensor structure and integrated lens module thereof” and U.S. Patent No. 8,314,481, which is entitled “Substrate structure for an image sensor package and method for manufacturing the same.”

A. U.S. Patent No. 8,004,602

The '602 Patent is directed towards simplifying the manufacturing process of an image sensor structure. '602 Patent at Abstract. One problem that existed in the prior art was that the

use of a threaded lens barrel required individually adjusting and checking the “relative distance between lens barrel 14 and the lens 141.” *Id.* at 1:55–59, Figure 1.



To solve this problem, the '602 Patent proposes using an lens module comprising an integrated lens holder and lens. *Id.* at Figures 3–5, 2:7–13, 3:47–58.

Another problem in the prior art is that the wire-bonding that connects the chip to the substrate takes up a large amount of space, which makes it “unfit for the modern digital image

products tending towards miniaturization.” *Id.* at 1:65–2:3. To solve this problem, the ’602 Patent replaces the wire bonds with conducting channels that pass through the chip. *Id.* at 3:16–31.

The specification describes that the integrated lens module provides several advantages including:

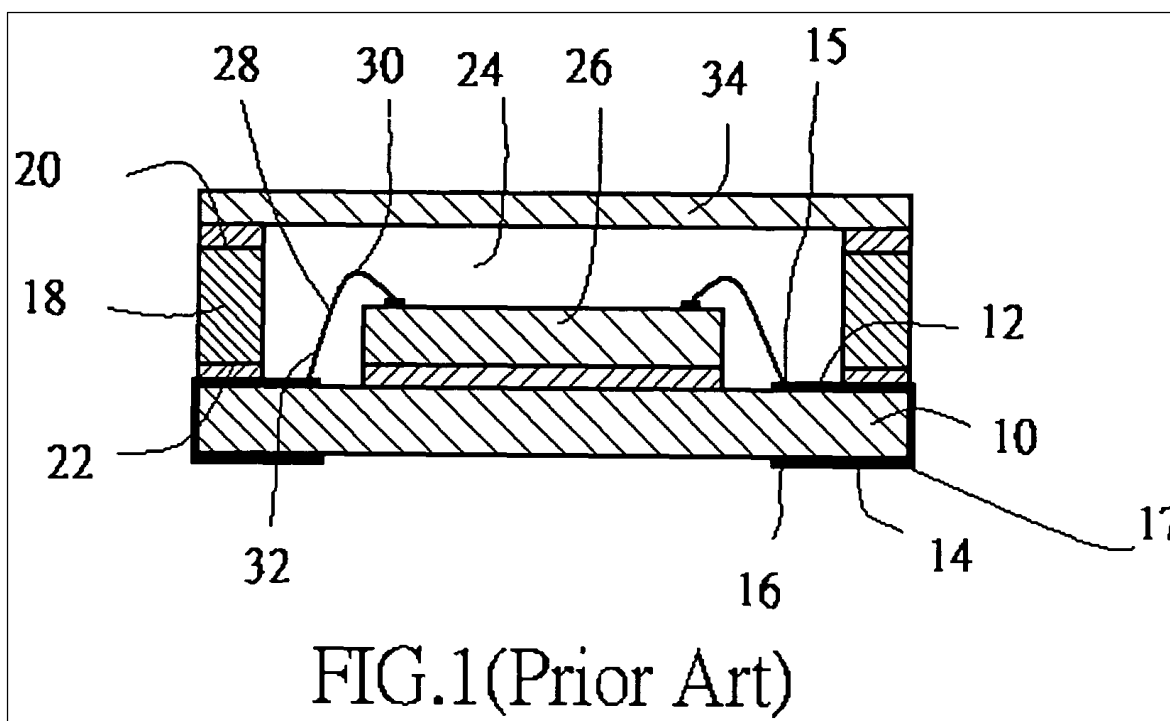
By using the integrated lens module to assemble the image sensor structure, a procedure for setting a relative distance between a lens and a chip can be simplified, so that a manufacturing process of the image sensor structure can be consequently simplified. Besides, the integrated lens module also facilitates reducing elements required in the image sensor structure and thereby decreasing a manufacturing cost of the image sensor structure. Moreover, by implementing the chip having a conducting channel, which can be electrically connected to an external circuit without the means of wire-bonding, the packaged image sensor structure 10 can be downsized.

Id. at 2:40–45.

B. U.S. Patent No. 8,314,481

The ’481 Patent “relates to a substrate structure for an image sensor package and a method for manufacturing the same, and more particularly to a substrate structure having a frame layer formed on the substrate of an image sensor to enhance the reliability of the image sensor.” ’481 Patent at 1:9–13. The ’481 Patent describes that “in the process of manufacturing the [prior art] substrate 10 and the frame layer 18, particles and wet air from atmosphere will enter the product through passages between the first electrodes, so the reliability of the product may be reduced.”

Id. at 1:34–37.



The '481 Patent solves this problem by adding an insulation layer “between the first electrodes and in direct surface contact with the upper surface of the bottom base.” *Id.* at 1:49–51.

II. LEGAL STANDARD

A. General principles

The general rule is that claim terms are generally given their plain-and-ordinary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014), *vacated on other grounds*, 575 U.S. 959, 959 (2015) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (internal quotation omitted). The plain-and-ordinary meaning of a term 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.” *Phillips*, 415 F.3d at 1313.

The “only two exceptions to [the] general rule” that claim terms are construed according to their plain-and-ordinary meaning are when the patentee (1) acts as his/her own lexicographer or (2) disavows the full scope of the claim term either in the specification or during prosecution. *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). The Federal Circuit has counseled that “[t]he standards for finding lexicography and disavowal are exacting.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014). To act as his/her own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term” and “‘clearly express an intent’ to [define] the term.” *Thorner*, 669 F.3d at 1365.

“Like the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent.” *Phillips*, 415 F.3d at 1317. “[D]istinguishing the claimed invention over the prior art, an applicant is indicating what a claim does not cover.” *Spectrum Int’l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1379 (Fed. Cir. 1998). The doctrine of prosecution disclaimer precludes a patentee from recapturing a specific meaning that was previously disclaimed during prosecution. *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). “[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.” *Id.* at 1325–26. Accordingly, when “an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

A construction of “plain and ordinary meaning” may be inadequate when a term has more than one “ordinary” meaning or when reliance on a term’s “ordinary” meaning does not resolve the parties’ dispute. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361

(Fed. Cir. 2008). In that case, the Court must describe what the plain-and-ordinary meaning is. *Id.*

“Although the specification may aid the court in interpreting the meaning of disputed claim language . . . , particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988). “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Technical dictionaries may be helpful, but they may also provide definitions that are too broad or not indicative of how the term is used in the patent. *Id.* at 1318. Expert testimony may also be helpful, but an expert’s conclusory or unsupported assertions as to the meaning of a term are not. *Id.*

B. Whether the Preamble is Limiting

Courts presume that the preamble does not limit the claims. *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010). But “[i]n general, a preamble limits the invention if it recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). “Conversely, a preamble is not limiting ‘where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’”

Catalina, 289 F.3d at 808 (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)). The Federal Circuit has provided some “guideposts” regarding whether the preamble is limiting: (1) preamble provides antecedent basis, (2) preamble is essential to understand limitations or terms in the claim body, (3) preamble recites “additional structure or steps underscored as important by the specification,” and (4) “clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art.” *Id.*

III. LEGAL ANALYSIS

A. Term #1: “chip”

Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
#1: “chip” U.S. Patent No. 8,004,602, Claims 1, 2 Proposed by Both Sides	“an integrated circuit (<i>e.g.</i> , light sensing elements and associated circuitry) and associated electrical connections (<i>e.g.</i> , conducting pads, conducting channels, etc.)”	“an integrated circuit (<i>e.g.</i> , light sensing elements and associated circuitry) and associated electrical connections (<i>e.g.</i> , conducting pads, conducting channel, etc.) formed on a flat piece of semiconductor material”

The Parties’ Positions:

Defendant contends that its proposed construction “will assist the jury in properly placing the ‘chip’ in relation to other components of the claimed image sensor structure and in the accused products.” Opening at 6. Specifically, Defendant contends that the ’602 Patent “draws a sharp distinction between the ‘chip’ and the ‘external circuit’ to which the chip is ‘electrically connected.’” *Id.* (citing ’602 Patent at 2:17–20). Defendant contends that the advantages of the claimed invention (downsizing of the image sensor structure) can only be achieved when the chip is a one flat piece of semiconductor material. *Id.*

Defendant contends that its proposed construction “provides an identification of the specific structure, i.e. a single piece of semiconductor material, that is connected to the external circuit.” *Id.* at 7. Defendant contends that its proposed construction “addresses a possible ambiguity in the Court’s prior construction in that its reference to the integrated circuit’s ‘associated circuitry’ could be read to include the separate external circuit that the patent specification distinguishes from the chip.” *Id.*

Defendant contends that its proposed construction is consistent with the prosecution history. *Id.* More specifically, Defendant contends that Applicant differentiated the claimed invention from prior art where the “lens module was attached to a [printed circuit board (“PCB”)] substrate containing the external circuit instead of the chip.” *Id.*

Defendant contends that its proposed construction is consistent with its extrinsic evidence. *Id.* at 8. Defendant contends that, for example, that one dictionary equates “chip” to “microchip” and defines the latter as “a small, thin piece of semiconductor bearing numerous circuits into its substrate.” *Id.* Defendant contends that “Defendant’s construction and the dictionary definitions are also consistent with the specification, which describes the use of CMOS image sensors, as one type of semiconductor-based image sensor that can be used with the invention.” *Id.* (citing ’602 Patent at 3:7–10).

Defendant contends that its proposed construction is consistent with Plaintiff’s extrinsic evidence. *Id.* More specifically, Defendant contends that the Plaintiff’s dictionary defines “chip” as a synonym for “integrated circuit” or “microchip.” *Id.* Defendant contends that the same dictionary defines “integrated circuit” as “[a] small piece of semiconductive material that contains interconnected miniaturized electronic circuits[.]” *Id.*

Defendant contends that:

[T]he IBM Dictionary of Computing indicates that the term integrated circuit is not coextensive with the term “chip,” as some integrated circuits, so-called hybrid integrated circuits, are defined to include both a “chip” *and* a separate “substrate” to which the chip is attached. If the term “chip” is construed to encompass the term “hybrid integrated circuit,” as defined by the IBM Dictionary of Computing, such construction would be inconsistent with (i) the definition of “hybrid integrated circuit,” (ii) the disclosure provided by the ’602 patent (distinguishing the chip from an external circuit/substrate on which the chip is mounted), and (iii) the prosecution history (making the same distinction).

Id. at 9 (emphasis in Defendant’s brief, internal citations omitted).

In its response, Plaintiff contends that Defendant “has not and cannot cite the specification in support of its additional ‘formed on a flat piece of semiconductor material.’” Response at 3. Plaintiff contends that Defendant is wrong to assume that Applicant was referring to a PCB when referencing an “external circuit” as the specification does not use the words PCB and “does not foreclose the possibility of a PCB connecting to an external circuit.” *Id.* Additionally, Plaintiff contends that conducting channel(s) 33, which is a part of Applicant’s “chip,” may extend into a PCB or other substrate. *Id.*

Plaintiff contends that Applicant’s prosecution statements are not a “clear and unmistakable” disclaimer because the prior art figure Applicant and Examiner were discussing does not show that the lens holder is on top of PCB 322, but rather is on top of image capture device 302. *Id.* at 5–6. Plaintiff further contends that “the actual distinction between Shangguan and the pending claims made by the above statement (neglected by [Defendant]) is that ‘Shangguan merely shows a lens that sits on top of a lens holder,’ as opposed to the claimed lens that was required to be ‘embedded in the through hole.’” *Id.* at 6. Plaintiff contends that, rather than prohibiting the use of PCBs, the prosecution statement only removes the requirement that a PCB must be used. *Id.*

Plaintiff contends that “[e]xtrinsic evidence also shows that an integrated circuit and associated electrical connections can be inseparably on or within a PCB and are not limited to semiconductor material only.” *Id.* at 7. More specifically, Plaintiff contends that there is no dispute that “chip” is a synonym for “integrated circuit.” *Id.* (citing Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000003). Plaintiff contends that the dictionary definition of the latter is “connected circuit elements inseparably associated on or within a continuous substrate[.]” *Id.* (citing Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000003). Plaintiff contends that “an integrated circuit’s substrate can be made of passive material, which is not semiconducting.” *Id.* (citing Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000004 (defining “hybrid integrated circuit” as “A class of integrated circuits in which the substrate is a passive material such as ceramic, and the active chips are attached to its surface.”) (emphasis in Plaintiff’s brief)).

In its reply, Defendant contends that “Plaintiff’s understanding of the applicable legal standards appears to be mistaken: claim terms are not construed in a manner untethered to their ordinary and customary meaning so as to encompass all that is not disclaimed by the specification or disavowed during prosecution.” Reply at 2. Defendant contends that “[a]bsent a special definition, the construction of the term ‘chip’ must be tethered to the ordinary meaning of ‘chip,’ which is ‘an integrated circuit (e.g. light sensing elements and associated circuitry) and associated electrical connections (e.g. conducting pads, conducting channel, etc.) formed on a flat piece of semiconductor material.’” *Id.*

With respect to Plaintiff’s argument that “PCB” does not appear in the specification, Defendant contends that the ’602 Patent “does not purport to provide a comprehensive list of exemplary external circuits to which the chip might be electrically connected,” but that the PCB is an external circuit to which a chip can be electrically connected. *Id.* at 3. Defendant contends

that “[b]y drawing a sharp distinction between the ‘chip’ and the ‘external circuit’—e.g., a PCB, the specification is consistent with the ordinary meaning the term ‘chip’ would have to a POSA.”

Id.

With respect to the prosecution history, Defendant contends that “[o]ne can only disavow claim scope that actually exists[,]” and that the plain-and-ordinary meaning of “chip” does not include PCBs. Defendant contends that the prosecution history is consistent with its position that “a chip is commonly understood to be formed on a single piece of semiconductor material, while a separate PCB is an external circuit distinct from the chip to which it is attached.” *Id.*

Defendant contends that Plaintiff is incorrect regarding the basis for Applicant’s differentiation of the claimed invention and the prior art. More specifically, Defendant contends that Plaintiff’s assertion that the difference between the Shangguan prior art reference and the claimed invention relates to the relationship between the lens holder and the lens is incorrect because “Examiner relied on the Yang reference, not Shangguan, for disclosing the claimed relationship between the lens holder and the lens.” *Id.* at 4.

With respect to Plaintiff’s argument that “chip” could include PCBs based on the dictionary definition (“connected circuit elements inseparably associated on or within a continuous substrate”), Defendant contends that Plaintiff’s argument overlooks the word “continuous.” *Id.* at 5. More specifically, Defendant contends that if “chip” could include PCBs, then the term would include two discrete substrates, *i.e.*, the semiconductor substrate and the PCB. *Id.*

Defendant finally contends that the definition of “hybrid integrated circuit” does not help Plaintiff because the definition describes that “active chips” are on the surface of the substrate, which indicates that the substrate, *e.g.*, PCB, is not the claimed “chip.” *Id.*

In its sur-reply, Plaintiff contends that contrary to Defendant's argument, it is not trying include a PCB within the meaning of "chip," but rather that "chip" does not exclude a PCB. Sur-Reply at 1–2.

Plaintiff contends that the fact that the specification and Claim 1 recites components within a chip such as the "light-sensing elements," "conducting pads," and "conducting channel," "defeats [Defendant's] notion that according to the plain and ordinary meaning 'chip' has to be 'formed on a flat piece of semiconductor material.'" *Id.* at 2 (citing '602 Patent at 3:8–23). Plaintiff contends that the specification expressly identifies "conductors" as part of the chip, and that "there is nothing inconsistent with the plain and ordinary meaning for 'chip' to be construed as an integrated circuit and associated electrical connections despite [Defendant] arguing otherwise." *Id.*

With respect to Defendant's argument that "chip" and "external circuit" are distinct, Plaintiff contends that the specification "does not foreclose conducting channel(s) 33 extending into a PCB." *Id.*

With respect to Defendant's argument that the prosecution history, Plaintiff contends that:

[Defendant] does not even argue prosecution disclaimer, as does Anker in the parallel case. [Defendant] takes the position that disclaiming a PCB from the scope of the claim would require "chip" to be broad enough to include it in the first place. But that argument presupposes that proper construction of "chip" must exclude a PCB, which as discussed above, finds not support in the specification or the claims.

Id. Plaintiff contends that because the prosecution history is "convoluted" and based on the erroneous citation of a prior art figure, there is not a "clear and unmistakable" disclaimer. *Id.* at 2–3. Plaintiff further contends that the prosecution statements only recite that a PCB is not required, and not that a PCB is excluded. *Id.* at 3.

With respect to Defendant’s argument that Plaintiff ignores “continuous” in one of the dictionary definitions, Plaintiff contends that a PCB can serve as a “continuous substrate.” *Id.* (citing Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000005).

With respect to Defendant’s argument that a hybrid integrated circuit is not a “chip” because it is a collection of chips, Plaintiff contends that the extrinsic evidence “defin[ed] hybrid integrated circuit as a *class* of integrated circuits, not necessarily defining a singular hybrid integrated circuit to have multiple chips.” *Id.* (citing Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000004) (emphasis in Plaintiff’s brief).

The Court’s Analysis:

After reviewing the parties’ arguments and considering the applicable law, the Court agrees with Plaintiff that “chip” may include a PCB—but not that it is required to exclude a PCB—for the reasons the follow. ***First***, The Court concludes that Defendant’s proposed construction is incorrect because it at-odds with the language of Claim 1. More specifically, Claim 1 describes that the claimed chip includes components such as “light-sensing elements,” “conducting pads,” and “conducting channel,” that are not necessarily or typically found on a “flat piece of semiconductor material,” as required by Defendant’s proposed construction.

Second, there is no support in the specification for Defendant’s requirement that a chip is “formed on a flat piece of semiconductor material,” nor has Defendant cited any such passage. By contrast, the specification only describes that the “chip” has a “substrate,” but does not further define the features of the substrate, *i.e.*, whether is “flat” or made of “semiconductor material,” which indicates that the plain-and-ordinary meaning of chip is not required to be formed on a flat piece of semiconductor material.” ’602 Patent at 1:28–30. Similarly, given that parts of the chip,

e.g., conducting channel(s) 33, could extend into the PCB, this indicates that a POSITA might understand that a chip is not required to exclude a PCB.

Third, the Court agrees with Plaintiff that Defendant misinterprets Applicant’s prosecution statement. Applicant, in the relevant prosecution statement, only described that “the claimed invention dispenses ***with having to*** use a PCB.” Opening, Ex. 4 at KTI_GEN_00000076 (emphasis added). In other words, this prosecution statement implies that prior to the claimed invention, similar devices had to use a PCB. By contrast, in the claimed invention, a chip did not have to use a PCB; rather, in the claimed invention, the PCB is optional. But the fact that a PCB is optional does not mean that it must be excluded, as required by Defendant’s proposed construction.

Fourth, the Court concludes that the extrinsic evidence supports the proposition that the term “chip” is broad enough to allow for the PCB to be optional. More specifically, the parties agree that “chip” is synonymous with “integrated circuit.” Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000003. The second definition for “integrated circuit” is “A combination of connected circuit elements inseparably associated on or within a continuous substrate.” Opening, Chatham Declaration, Ex. 3 at KTI_CC_00000005. The Court concludes that this definition is broad enough to include circuit elements on a PCB.

The first definition for “integrated circuit” tends to confirm the Court’s conclusion that the second definition is broad enough to include circuit elements on a PCB. More specifically, the first definition recites that an “integrated circuit” is “[a] small piece of semiconductive material that contains interconnected miniaturized electronic circuits.” *Id.* The fact that the first definition appears to describe that the substrate is a particular material, *i.e.*, semiconductive, while the second

definition uses the broader term “substrate,” indicates that the second definition is not limited to semiconductive materials and thus could include PCBs.

Therefore, for at least these reasons, the Court adopts Plaintiff’s proposed construction of “an integrated circuit (e.g., light sensing elements and associated circuitry) and associated electrical connections (e.g., conducting pads, conducting channels, etc.).”

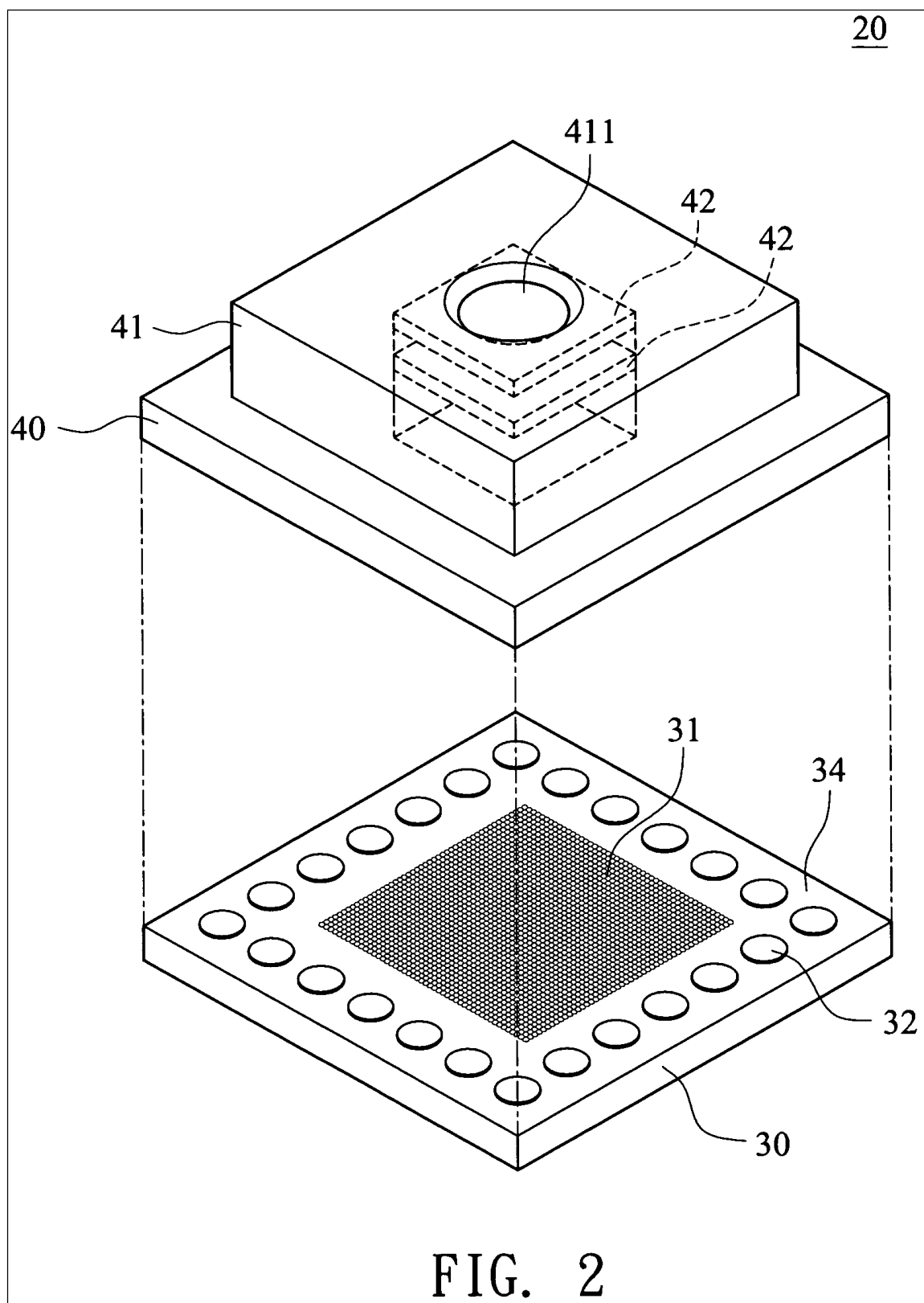
B. Term #2: “a plurality of first conducting pads arranged around the light sensing area”

Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
#2: “a plurality of first conducting pads arranged around the light sensing area” U.S. Patent No. 8,004,602, Claim 1 Proposed by Reolink	no construction required / plain and ordinary meaning	“multiple conducting pads disposed on all sides of the light sensing area”

The Parties’ Positions:

Defendant contends that its proposed construction “clarifies the positional relationship of the first conducting pads and the light sensing area.” Opening at 9. Defendant contends that its proposed construction is “entirely consistent” with the dictionary definition for “around” (“on all sides of” and “in such a position as to encircle or surround”). *Id.* at 10 (citing Opening, Chatham Declaration, Ex. 2 at 2).

Defendant contends that its proposed construction is “entirely consistent” with the intrinsic evidence. *Id.* More specifically, Defendant contends that Figure 2 depicts conducting pads 32 surround light sensing area 31. *Id.* Defendant contends that the specification does not otherwise provide any other disclosure as to the meaning of this claim term. *Id.* at 11.



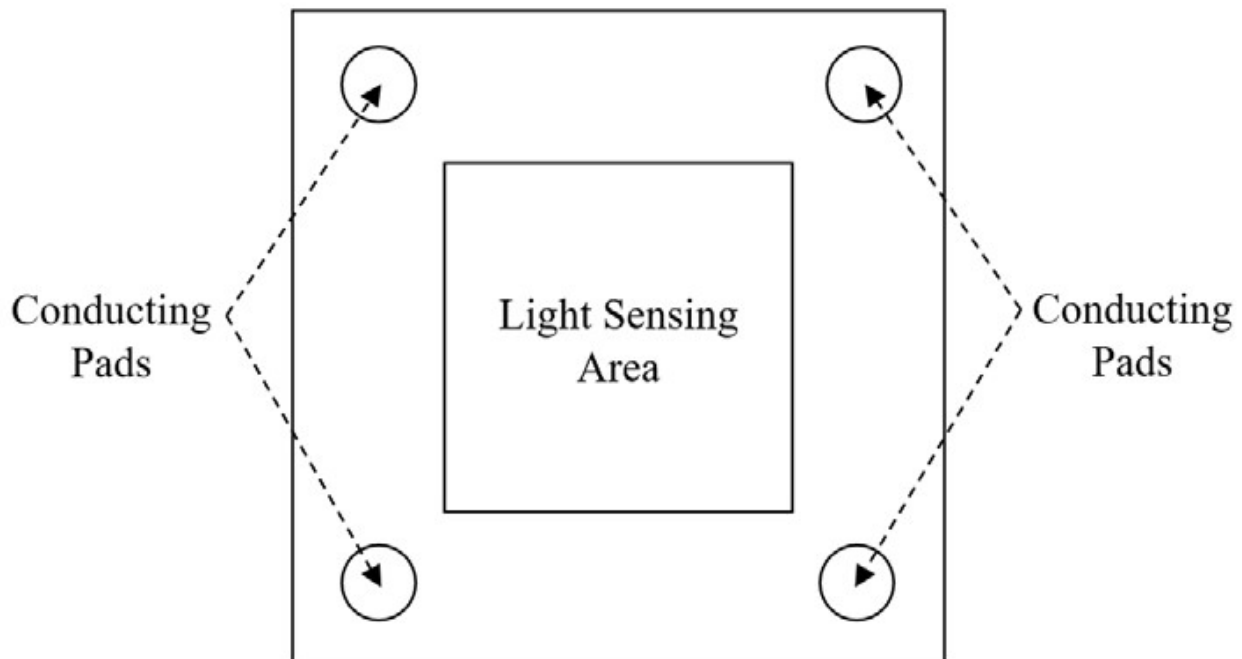
In its response, Plaintiff contends that a POSITA understands the meaning of this term and no construction is necessary. Response at 8.

With respect to Defendant's argument that Figure 2, Plaintiff contends that Defendant's argument and proposed construction improperly attempts to limit the claim term to a disclosed embodiment. *Id.* (citing *Epos Tech. Ltd. v. Pegasus Tech. Ltd.*, 766 F.3d 1338, 1341 (Fed. Cir. 2014)).

With respect to Defendant's argument that a more "appropriate" definition from the dictionary Defendant cites is "[i]n the immediate vicinity of; near." *Id.* at 9 (Opening, Chatham Declaration, Ex. 1)).

Plaintiff contends that Defendant's proposed construction is "overly restrictive" because it assumes a shape with "sides," *e.g.*, a polygon, but the claim language does not require a shape with sides, but rather could be a shape that does not have sides, *e.g.*, a circle or oval. *Id.*

Plaintiff contends that Defendant's proposed construction may be difficult for a jury to apply, *e.g.*, if the conducting pads are "all around" the light sensing area in Plaintiff's hypothetical:



In its reply, Defendant contends that the dictionary definitions Plaintiff suggests (“vicinity of; near”) are “overly vague” and will likely result in jury confusion. Reply at 6.

With respect to Plaintiff’s argument that Defendant’s proposed construction is “overly restrictive” because it assumes a shape with “sides,” Defendant contends that Plaintiff “fails to provide any evidence that such theoretical configurations were ever contemplated by the applicant—much less provided in any accused product or any other commercial product.” *Id.*

In its sur-reply, Plaintiff contends that Defendant has no response to Plaintiff’s argument that Defendant’s proposed construction improperly excludes an embodiment. Sur-Reply at 4.

With respect to the dictionary definitions it points to, Plaintiff contends that those definitions are from the dictionary Defendant cites. *Id.* Plaintiff contends that given that Defendant’s dictionary definition (“on all sides of”) has clarity issues, the term should just be construed according to its plain-and-ordinary meaning. *Id.*

With respect to Plaintiff’s argument that Defendant’s proposed construction is “overly restrictive” because it assumes a shape with “sides,” Plaintiff contends that Defendant’s proposed construction is “problematic if the structure has, *e.g.*, (1) a non-polygon light sensing area, (2) fewer conducting pads than the number of light sensing area sides, or (3) conducting pads located at light sensing area vertices/corners.” *Id.* Plaintiff contends that, in any case, “[p]roper construction does not depend on the accused instrumentalities.” *Id.*

The Court’s Analysis:

After reviewing the parties’ arguments and considering the applicable law, the Court agrees with Plaintiff that this term should be construed according to its plain-and-ordinary meaning for the reasons that follow. *First*, the “heavy presumption” is that terms should be construed according

to their plain-and-ordinary meaning. *Azure Networks*, 771 F.3d at 1347. **Second**, Defendant does not expressly allege lexicography or disclaimer, which are the only two exceptions to the general rule that a term should be construed as having its plain-and-ordinary meaning. *Thorner*, 669 F.3d at 1365.

Third, Defendant’s proposed construction Defendant’s argument and proposed construction improperly attempts to limit the claim term to the embodiment depicted in Figure 2. *Liebel-Flarsheim*, 358 F.3d at 913 (“[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.”).

Fourth, the Court concludes that the words “arranged around” are common English words and are well within the knowledge and understanding of a lay jury. As such, construing such common words is an “exercise in redundancy.” *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”)

Therefore, for the reasons described above, the Court finds that the term should be construed according to its plain-and-ordinary meaning.

C. Term #3: “substrate structure for an image sensor package”

Term	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
#3: “substrate structure for an image sensor package” U.S. Patent No. 8,314,481, Claim 1 Proposed by Defendants	no construction required / plain and ordinary meaning <i>wherein</i> “substrate” means “foundation that other components may be connected to or formed on”	limiting; “a structure that serves as a substrate for an image sensor package (e.g. by acting as a base layer on top of which the image sensor package can be placed).”

The Parties’ Positions:

Defendant first contends that the preamble is limiting and then proposes a construction for the preamble. Defendant contends that preamble is limiting based on the claims and the specification. Opening at 11. With respect to the former, Defendant contends that:

“Substrate structure for an image sensor package” as used in the claims limits the general shape and size of the claimed substrate—structural limitations not otherwise found in the body of the claims which otherwise merely recite a bottom base and a frame layer—evidencing that the preamble is a limitation.

Id. (citing *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006)). With respect to the latter, Defendant contends that because “substrate structure for an image sensor package” appears in the title, Abstract, in other passages in the specification, and in both independent claims “underscore[es] the importance of the feature to the claimed invention” and demonstrates that the preamble is not “merely a statement of intended use.” *Id.* at 12.

In its response, Plaintiff contends that the preamble is not limiting, but does not appear to make any arguments why the preamble is not limiting. *See* Response at 13–14.

In their respective reply and sur-reply, the parties do not appear to make any arguments why the preamble is limiting or not limiting. Reply at 7–8, Sur-Reply at 5–7.

The Court's Analysis:

This term only appears in the preamble of Claim 1. After reviewing the parties' arguments and considering the applicable law, the Court agrees with Plaintiff that the preamble is not limiting for the reasons that follow. **First**, the presumption is that preambles are not limiting. *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1358 (Fed. Cir. 2010).

Second, the language of the preamble itself indicates that the preamble is not limiting. "Substrate structure" in the preamble is not limiting because the claim body recites a complete invention. More specifically, the preamble of Claim 1 recites that the body of the claim further describes what the "substrate structure" comprises. '481 Patent, Preamble ("A substrate structure for an image sensor package, ***the substrate structure comprising:***") (emphasis added). In other words, "substrate structure" in the preamble is not limiting because the preamble describes that the claim body recites a structurally complete invention with respect to "substrate structure." *Catalina*, 289 F.3d at 808 ("a preamble is not limiting where a patentee defines a structurally complete invention in the claim body").

With respect to "image sensor package," the Court concludes that it is not limiting because it only "state[s] a purpose or intended use for the invention," namely that the "substrate structure" is being used in a "image sensor package." *Catalina*, 289 F.3d at 808 (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)).

Third, with respect to Defendant's argument that the claims show that the preamble contains structural limitations not otherwise found in the body of the claims, the Court disagrees for the reason stated above. With respect to Defendant's argument that the specification shows that the preamble "underscore[es] the importance of the feature to the claimed invention" and

demonstrates that the preamble is not “merely a statement of intended use,” the Court again disagrees for the reason stated above.

Therefore, for at least these reasons, the Court concludes that Defendant has not overcome presumption that the preamble for Claim 1 is not limiting. Because the preamble is not limiting, the Court does not need to construe the meaning of the preamble.

IV. CONCLUSION

In conclusion, for the reasons described herein, the Court adopts the below constructions as its final constructions.

SIGNED this 29th day of April, 2024.



ALAN D ALBRIGHT
UNITED STATES DISTRICT JUDGE

Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction	Court's Final Construction
#1: "chip" U.S. Patent No. 8,004,602, Claims 1, 2 Proposed by Both Sides	"an integrated circuit (e.g., light sensing elements and associated circuitry) and associated electrical connections (e.g., conducting pads, conducting channels, etc.)"	"an integrated circuit (e.g. light sensing elements and associated circuitry) and associated electrical connections (e.g. conducting pads, conducting channel, etc.) formed on a flat piece of semiconductor material"	"an integrated circuit (e.g., light sensing elements and associated circuitry) and associated electrical connections (e.g., conducting pads, conducting channels, etc.)"
#2: "a plurality of first conducting pads arranged around the light sensing area" U.S. Patent No. 8,004,602, Claim 1 Proposed by Reolink	no construction required / plain and ordinary meaning	"multiple conducting pads disposed on all sides of the light sensing area"	Plain-and-ordinary meaning
#3: "substrate structure for an image sensor package" U.S. Patent No. 8,314,481, Claim 1 Proposed by Reolink	no construction required / plain and ordinary meaning <i>wherein</i> "substrate" means "foundation that other components may be connected to or formed on"	limiting; "a structure that serves as a substrate for an image sensor package (e.g. by acting as a base layer on top of which the image sensor package can be placed)."	Preamble is not limiting. No further construction is required.