

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

IMMERVISION, INC.,)	
)	
Plaintiff,)	
)	
v.)	Civil Action No. 21-1484-MN-CJB
)	
APPLE, INC.,)	
)	
Defendant.)	

REPORT AND RECOMMENDATION

Pending before the Court in this patent infringement action filed by Plaintiff

ImmerVision, Inc. (“Plaintiff”) is Defendant Apple, Inc.’s (“Defendant”) renewed motion for judgement on the pleadings, filed pursuant to Federal Rule of Civil Procedure 12(c) (“Motion for Judgment on the Pleadings”). (D.I. 177) The parties’ respective Motions for Claim Construction (“Motions for Claim Construction,” and collectively with the Motion for Judgment on the Pleadings, “Motions”) are also currently before the Court. (D.I. 176; D.I. 178) For the reasons set forth below, the Court recommends that: (1) Defendant’s Motion for Judgment on the Pleadings be GRANTED; and (2) therefore, that the parties’ Motions for Claim Construction be DENIED as MOOT.

I. BACKGROUND

A. Factual Background

There is one asserted patent in this case: United States Patent No. 6,844,990 (the “990 patent” or “the asserted patent”), which is titled “Method for Capturing and Displaying a Variable Resolution Digital Panoramic Image.” (D.I. 20; *id.*, ex. A)¹ The '990 patent explains

¹ The asserted patent is in the record as Exhibit A to the operative Complaint, and the Court will refer to it hereafter simply by its patent number. (D.I. 20, ex. A)

that the invention described therein “relates to obtaining digital panoramic images and displaying panoramic images on computer screens.” (’990 patent, col. 1:12-14) In this case, Plaintiff alleges that, *inter alia*, Defendant’s iPhone 13 Pro and 13 Pro Max smartphones (“the accused products”) infringe dependent claim 21 of the ’990 patent, via the accused products’ inclusion of an ultra-wide lens apparatus. (D.I. 20 at ¶¶ 17-23)

On November 26, 2014, Plaintiff initiated an *ex parte* reexamination proceeding with respect to multiple claims in the ’990 patent, including independent claim 17 (the claim from which claim 21 depends). (*Id.* at ¶ 13) The United States Patent and Trademark Office (“USPTO”) issued a reexamination certificate for the patent on May 8, 2015. (*Id.*, ex. A at 25-27) In relevant part, that certificate states that claim 17 was cancelled, and that claim 21 was not reexamined. (*Id.*, ex. A at 26). The ’990 patent expired on or about May 10, 2022. (D.I. 20 at ¶ 15)

Additional facts relevant to resolution of the instant Motions will be discussed in Section III.

B. Procedural Background

Plaintiff filed this action on October 22, 2021. (D.I. 1)² In lieu of filing an Answer, on April 14, 2022, Defendant filed a motion to dismiss for failure to state a claim. (D.I. 16) That motion was terminated when Plaintiff filed its now-operative Amended Complaint on April 28, 2022. (D.I. 20) Defendant then filed its Answer to the Amended Complaint on May 12, 2022. (D.I. 22)

² United States District Judge Maryellen Noreika referred this case to the Court on October 28, 2021 to resolve all pre-trial matters up to and including expert discovery matters. (D.I. 5)

On June 15, 2023, Defendant filed a motion for judgment on the pleadings (the “initial motion for judgment on the pleadings”). (D.I. 110) In that same month, the parties also filed their Joint Claim Construction Brief, (D.I. 101), and each side filed a motion for claim construction, (D.I. 117; D.I. 118). The Court held a *Markman* hearing on July 27, 2023, taking the claim construction matters under advisement thereafter. (July 27, 2023 Minute Entry)

After the *Markman* hearing, and while the above-referenced motions were still pending, on September 12, 2023, Defendant filed a motion to stay the case pending the completion of an instituted *inter partes* review (“IPR”) proceeding relating to the '990 patent (“motion to stay”). (D.I. 147) The Court heard argument on the motion to stay, and on October 17, 2023, it granted that motion, staying the case pending completion of the IPR proceeding.³ (D.I. 159) Consequently, Defendant’s initial motion for judgment on the pleadings and the parties’ motions for claim construction were denied without prejudice to renew, if and when the stay was lifted. (D.I. 160)

On August 20, 2024, Plaintiff moved the Court to lift the stay. (D.I. 165) That motion was granted on September 23, 2024. (D.I. 170) Thereafter, Defendant renewed its challenge to the operative complaint, via the filing of the instant Motion for Judgment on the Pleadings, (D.I. 177); the parties also renewed their Motions for Claim Construction, (D.I. 176; D.I. 178). With regard to the Motion for Judgment on the Pleadings, the parties agreed to adopt and utilize the

³ This action is related to Civil Action Nos. 21-1570-MN-CJB, 21-1733-MN-CJB, 23-1012-MN-CJB and 25-366-MN-CJB. Only one of those related cases involved the '990 patent: Civil Action No. 21-1773-MN-CJB. In that civil action, in which Plaintiff’s allegations were initially broader, by mid-2023 Plaintiff was alleging only that Defendant infringed claim 27 of the '990 patent. (Civil Action No. 21-1733-MN-CJB, D.I. 107 at ¶¶ 19-31) That action was dismissed with prejudice by stipulation on August 20, 2024. (Civil Action No. 21-1733-MN-CJB, D.I. 178)

briefing that they had previously filed as to the initial motion for judgment on the pleadings. (D.I. 177 at 1 (citing D.I. 111; D.I. 123; D.I. 128)) The renewed Motions were filed and fully briefed as of November 5, 2024. (D.I. 176-78)

II. STANDARD OF REVIEW

In this Report and Recommendation, the Court will primarily assess Defendant’s Motion for Judgment on the Pleadings. With regard to such a motion, which is brought pursuant to Federal Rule of Civil Procedure 12(c), the Court uses the same standard that applies to a motion to dismiss filed pursuant to Federal Rule of Civil Procedure 12(b)(6). *See Wolfington v. Reconstructive Orthopaedic Assocs. II PC*, 935 F.3d 187, 195 (3d Cir. 2019). That is, the Court must view all factual allegations in a complaint in the light most favorable to the non-moving party, and it may not grant the motion “unless the movant clearly establishes that no material issue of fact remains to be resolved and that he is entitled to judgment as a matter of law.” *Id.* (internal quotation marks and citation omitted).

When deciding a Rule 12(c) motion, just as with a Rule 12(b)(6) motion, courts may only consider “the complaint, exhibits attached to the complaint, matters of public record, as well as undisputedly authentic documents if the complainant’s claims are based upon these documents.” *Id.* (internal quotation marks and citation omitted). Additionally, courts may consider documents that are not attached as exhibits to the complaint if they are nevertheless “integral to or explicitly relied upon in the complaint[.]” *In re Burlington Coat Factory Secs. Litig.*, 114 F.3d 1410, 1426 (3d Cir. 1997) (internal quotation marks, citation and emphasis omitted); *see also Wolfington*, 935 F.3d at 195.

III. DISCUSSION

As was noted above, dependent claim 21 is the only asserted claim in this case, and it depends on now-cancelled independent claim 17. The two claims (with relevant claim language italicized) recite as follows:

17. *A panoramic objective lens* comprising:

optical means for projecting a panorama into an image plane of the *objective lens*, the optical means having an image point distribution function that is not linear relative to the field angle of objective points of the panorama, the distribution function having a maximum divergence of at least $\pm 10\%$ compared to a linear distribution function, such that a panoramic image obtained by means of the *objective lens* comprises at least one substantially expanded zone and at least one substantially compressed zone.

21. The *panoramic objective lens* according to claim 17, wherein *the lens* compresses the center of the image and the edges of the image, and expands an intermediate zone of the image located between the center and the edges of the image.

('990 patent, cols. 20:51-61, 21:7-11 (emphasis added))⁴ The parties agree that claim 21 utilizes means-plus-function language. (D.I. 111 at 4; D.I. 123 at 2; *see also* D.I. 175 at 17, 20)

In resolving the Motion for Judgment on the Pleadings, below the Court will first address the law as it relates to “single means” claims and the related issue of enablement. Next, it will determine what standard of review applies to its analysis. Lastly, the Court will address the merits, assessing whether claim 21 is (as Defendant asserts) a “single means” claim—and if so, whether it is enabled.

A. Single Means Claims

⁴ Because claim 21 was originally dependent on claim 17, claim 21 incorporates all of now-cancelled claim 17's content. (D.I. 123 at 2 n.2); *see also Eastcott v. Hasselblad USA, Inc.*, 564 F. App'x 590, 592 (Fed. Cir. 2014).

The parties' arguments relating to the Motion for Judgment on the Pleadings have to do with the concept of a "single means" claim, which is a term of art in patent law. So to begin, the Court will explain what a "single means" claim is, and how that sort of claim implicates various provisions of 35 U.S.C. § 112 ("Section 112").⁵

Historically, the Supreme Court of the United States has been skeptical of and has prohibited broad functional claiming. *See O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 113 (1853); *see also Halliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 12 (1946); *Enfish, LLC v. Microsoft Corp.*, 9 F. Supp. 3d 1126, 1128 (C.D. Cal. 2014). That is, the Supreme Court refused to permit patent claims when the patentee used functional language in order to claim any means of accomplishing a result untethered to the "process or machinery [by which] the result is accomplished." *Morse*, 56 U.S. (15 How.) at 113. Today, the enablement requirement of 35 U.S.C. § 112 is the statutory mechanism that helps ensure that the inventor fully discloses how to carry out the claimed invention, i.e., how to make and use it. *See Amgen Inc. v. Sanofi, Aventisub LLC*, 987 F.3d 1080, 1084 (Fed. Cir. 2021), *aff'd sub nom. Amgen Inc. v. Sanofi*, 598 U.S. 594 (2023); *see also* pre-AIA 35 U.S.C. § 112, ¶ 1; 35 U.S.C. § 112(a). Such disclosure must be commensurate with the scope of the claims. *Amgen Inc.*, 987 F.3d at 1084. One of the

⁵ The patent statute was amended in September 2011 by the Leahy-Smith America Invents Act ("AIA"). *See* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 296-97 (2011). The pre-AIA version of the Patent Act applies in this case because the relevant patent application was filed prior to enactment of the AIA. (*See* '990 patent at 1; *see also* D.I. 111 at 1; D.I. 123 at 4-5, 10) The post-AIA version of the relevant portions of Section 112, (35 U.S.C. § 112 (a), (f)), are identical to the respective pre-AIA portions of Section 112, (35 U.S.C. § 112 ¶¶ 1, 6). *See Media Rts. Techs., Inc. v. Cap. One Fin. Corp.*, 800 F.3d 1366, 1371 n.1 (Fed. Cir. 2015); *Enzo Life Scis., Inc. v. Gen-Probe Inc.*, C.A. No. 12-104-LPS, 2017 WL 2829625, at *2 n.4 (D. Del. June 28, 2017), *aff'd sub nom. Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.*, 928 F.3d 1340 (Fed. Cir. 2019). Herein, the Court refers to the pre-AIA version of the statute.

ways that a patent claim can fail the enablement test—and thus amount to a claim that has undue breadth—is where it “covers every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor.” *In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983) (citing *Morse*, 56 U.S. (15 How.) at 112).⁶

That said, in enacting pre-AIA 35 U.S.C. § 112, ¶ 6 (“Section 112, paragraph 6”)—now 35 U.S.C. § 112(f)—Congress did permit patentees to express a claim in terms of its function. But it did so only in certain limited, narrow circumstances. Section 112, paragraph 6 recited as follows:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6. As seen above, pursuant to Section 112, paragraph 6, patentees could draft their claims by using purely functional language (i.e., via the use of “means expressions”) if they satisfied their duty “to clearly link or associate structure [described in the patent’s specification] with the claimed function[.]” *Med. Instrumentation & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003); *see also Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1318 (Fed. Cir. 2012).⁷ Additionally, as Section 112, paragraph 6 also made clear, such an expression may

⁶ The law of the United States Court of Appeals for the Federal Circuit applies to issues unique to patent cases, *Allergan, Inc. v. Sandoz, Inc.*, 681 F. App’x 955, 959 (Fed. Cir. 2017), like the issues regarding “single means” claiming and enablement that are discussed herein. The law of the regional circuit applies to procedural issues relating to the Motion for Judgment on the Pleadings. *See CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC*, 15 F.4th 1091, 1095 (Fed. Cir. 2021).

⁷ Following this statutory requirement helps ensure that a claim is not unduly broad, in that the requisite linkage “rules out the possibility that any and every means which performs the function specified in the claim *literally* satisfies that limitation”; instead, only the

only be made in an “element in a claim for a combination[.]” 35 U.S.C. § 112, ¶ 6. Restricting application of Section 112, paragraph 6 to combination claims further narrowed the scope of resultant claims, in that “[t]he claim must particularly and distinctly point out what elements are in the relationship and how they are related[.]” L. James Harris, *Some Aspects of the Underlying Legislative Intent of the Patent Act of 1952*, 23 Geo. Wash. L. Rev. 658, 687 (1955). “It was felt by the drafters that means claims should be permitted in combination claims because a combination claim was in all cases claiming of a relationship or association of elements.” *Id.* (distinguishing between combination claims and claims that are “a single recitation of means plus a statement of function[.]” which “[are] generally recognized as an attempt to monopolize all means for producing the stated result and is equivalent to claiming the result”); *see also* Rudolph P. Hofmann, Jr. & Edward P. Heller, III, *The Rosetta Stone for the Doctrines of Means-Plus-Function Patent Claims*, 23 Rutgers Computer & Tech. L.J. 227, 260 (1997) (“A combination claim consisting of elements expressed in terms of its actual function provided patentees with broad, yet not impermissibly broad, patent protection.”).

With the Motion for Judgment on the Pleadings, Defendant is arguing that claim 21 is a functional claim that is written in means-plus-function format—but one that does not properly invoke the protection of Section 112, paragraph 6. Defendant asserts that this is so because the

structure(s) disclosed in the specification (and their equivalents) do so. *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991) (emphasis in original) (internal quotation marks and citation omitted); *see also Twin Peaks Software Inc. v. IBM Corp.*, 690 F. App’x 656, 664 (Fed. Cir. 2017) (“[T]he *quid pro quo* for the convenience of employing [Section 112, paragraph] 6 is to clearly link or associate corresponding structure to the claimed function.”) (internal quotation marks and citation omitted); *Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (citing cases).

claim is a “single means” claim. Consequently, Defendant asserts that claim 21 is invalid under Section 112 for lack of enablement.

So, what is a “single means” claim and why might such a claim be invalid for lack of enablement? As was noted above, Section 112, paragraph 6’s text states that means-plus-function language may be utilized to express “an *element* in a claim for a *combination*[.]” 35 U.S.C. § 112, ¶ 6 (emphasis added). In other words, Section 112, paragraph 6 allows means-plus-function-type claiming only as to claims that have *more than one element*; if the claim at issue contains *only a single element* (and not a *combination of elements*), then it does not meet the full requirements of this portion of the statute. *In re Hyatt*, 708 F.2d at 713-14; *see also Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1371 (Fed. Cir. 2003) (“Through use of means-plus-function limitations, patent applications are allowed to claim elements *of a combination* functionally, without reciting structures for performing those functions.”) (emphasis added); *Bos. Sci. Corp. v. Micrus Corp.*, 556 F. Supp. 2d 1045, 1066 (N.D. Cal. 2008); *see also Ex Parte Bo Wang*, Appeal 2023-001888, 2024 WL 2292763, at *2 (P.T.A.B. May 20, 2024). The Federal Circuit has explained that a “single means” claim—i.e., a claim that “recites merely one means plus a statement of function and nothing else”—is a type of claim that fails the “combination” requirement, in that it recites only a single element. *In re Hyatt*, 708 F.2d at 713-14 (internal quotation marks omitted) (quoting P.J. Federico, *Commentary on the New Patent Act*, 35 U.S.C.A. 1, 26 (1954)). And the Federal Circuit has further stated that a “single means” claim is typically held invalid for lack of enablement because it purports to cover every conceivable means for achieving the stated result, while the specification discloses only those means that were known to the inventor. *In re Hyatt*, 708 F.2d at 714-15; *see also* P.J. Federico,

Commentary on the New Patent Act, 35 U.S.C.A. 1, 26 (1954), *reprinted in* 75 J. Pat. & Trademark Off. Soc’y, 161, 186 (1993).

B. Standard of Review

Next, the Court will address what standard of review applies to its resolution of the Motion for Judgment on the Pleadings—a motion that seeks dismissal of the operative complaint due to the asserted applicability of an affirmative defense (i.e., lack of enablement).

Generally, patent claims are afforded a statutory presumption of validity, 35 U.S.C. § 282(a), such that a finding of invalidity (and supporting facts) must be proved by clear and convincing evidence, *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2011); *ParkerVision, Inc. v. Qualcomm Inc.*, 116 F. 4th 1345, 1362 (Fed. Cir. 2024). Plaintiff claims it is entitled to that presumption here as part of the Court’s review of the Motion for Judgment on the Pleadings. (D.I. 123 at 4-5)

The Court certainly agrees with Plaintiff that the '990 patent enjoys the benefit of the presumption of validity, as the USPTO “has already examined whether the patent satisfies ‘the prerequisites for issuance[.]’” *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019) (quoting *Microsoft Corp.*, 564 U.S. at 95-96). But with regard to the motion at issue here, the parties’ disputes are not disputes of fact. They are disputes over questions of *law*.⁸ That is, the Court is being called on to assess whether claim 21 is a “single means” claim, which is an issue decided solely in light of the relevant claim language. *See, e.g., In re Hyatt*, 708 F.2d at

⁸ *Cf. Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) (noting that “interpretation of the scope and meaning of a means-plus-function limitation” and “whether a limitation falls within [Section] 112, [paragraph] 6” are matters of law); *see also Amgen Inc. v. Sanofi, Aventisub LLC*, 850 F. App’x 794, 797-98 (Fed. Cir. 2021) (noting that enablement is a question of law, although the inquiry may be based on underlying factual findings, if applicable) (collecting cases).

714; *Enfish*, 9 F. Supp. 3d at 1129-30; *CBT Flint Partners, LLC v. Return Path, Inc.*, 566 F. Supp. 2d 1363, 1370-72 (N.D. Ga. 2008). Since the Court need resolve only disputes of law in addressing this dispute, the clear and convincing evidence standard will not be applicable to its decision here. *Cf. Microsoft Corp.*, 564 U.S. at 114 (Breyer, J., concurring) (emphasizing that, when dealing with patent invalidity, the clear and convincing “evidentiary standard of proof applies to questions of fact and not to questions of law”); *Genetic Techs. Ltd. v. Lab’y Corp. of Am. Holdings*, Civil Action No. 12-1736-LPS-CJB, 2014 WL 4379587, at *5 n.5 (D. Del. Sept. 3, 2014); (D.I. 128 at 1-2 (Defendant stating the same); D.I. 123 at 11 (Plaintiff not disputing that the Motion for Judgment on the Pleadings does not involve disputed factual matters)). Put differently (and as will be seen below), Plaintiff has not plausibly suggested the existence of disputed factual issues that have relevance to the resolution of the Motion for Judgment on the Pleadings. Therefore, the Court will adjudicate that motion simply by determining whether Defendant’s argument is correct as a matter of law, without importing any evidentiary standard of proof into that analysis.

C. Analysis of the Merits of Defendant’s Arguments

Lastly, the Court will now assess whether claim 21 is a “single means” claim (as Defendant contends) and otherwise resolve the parties dispute about enablement. (D.I. 111 at 4-8; D.I. 128 at 2-9)

The parties’ primary dispute concerns whether claim 21, incorporating all of claim 17, recites multiple qualifying elements sufficient to render it a “claim for a combination”—or whether, alternatively, it recites only a single element.⁹ (D.I. 111 at 6-8; D.I. 123 at 5-10) To

⁹ In the Court’s view, when Section 112, paragraph 6 refers to an “element” in the context of an apparatus claim, it is referring to a mechanical element of the apparatus. The Court thinks this is so in part because P.J. Federico, a principal author of the 1952 Act and then-Chief

determine whether claim 21 recites multiple elements or not, the Court begins by looking at the plain language of the claim.

Claim 17, from which claim 21 depends, is a claim to a “panoramic objective lens[.]” (’990 patent, col. 20:51) And when one simply looks facially at claim 17, it seems clear that it contains only one element. (*Id.*, col. 20:51-61) That element amounts to the grouping of words following the word “comprising”—i.e., an “optical means for projecting a panorama into an image plane of the objective lens” (*Id.*; see also D.I. 111 at 7); see *Enfish*, 9 F. Supp. 3d at

Patent Examiner, explained in a contemporaneous commentary that as to this paragraph, “a combination may not be only a combination of *mechanical elements* [in an apparatus claim], but also a combination of substances in a composition claim, or steps in a process claim[.]” Federico, *Commentary on the New Patent Act*, 75 J. Pat. & Trademark Off. Soc’y at 186 (emphasis added). Although Federico’s writing does not have the force of binding precedent, the Federal Circuit has repeatedly cited to his articulation above when discussing the import and meaning of Section 112, paragraph 6. See, e.g., *Masco Corp. v. United States*, 303 F.3d 1316, 1326 (Fed. Cir. 2002) (quoting Federico, *Commentary on the New Patent Act*, 75 J. Pat. & Trademark Off. Soc’y at 186); *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1582 (Fed. Cir. 1997) (same); see also *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1360 (Fed. Cir. 2015) (Newman, J., dissenting) (same); *In re Fuetterer*, 319 F.2d 259, 264 (C.C.P.A. 1963) (Rich, J.) (same, agreeing with Federico’s definition of combination and noting it is “fully supported by the legislative history”). With that said, the Court acknowledges that the Federal Circuit has noted that the term “element” can sometimes be used in patent law not only to connote “structural parts of the accused device or a device embodying the invention[.]” but also simply to refer to any limitation in a claim. *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1533 n.9 (Fed. Cir. 1987).

In any event, the Court need not resolve whether the second qualifying element in claim 21 is required to be a “mechanical element” or mechanical component of the invention. That is because, as further explained below, Plaintiff here identifies the overall claimed apparatus as amounting to the additional element at issue. For reasons the Court sets out below, in the context of Section 112, paragraph 6 analysis, an element of an apparatus cannot be that very apparatus itself.

1129.¹⁰ All of the language that follows this phraseology simply further describes the characteristics of that single “optical means”:

. . . the optical means having an image point distribution function that is not linear relative to the field angle of objective points of the panorama, the distribution function having a maximum divergence of at least $\pm 10\%$ compared to a linear distribution function, such that a panoramic image obtained by means of the objective lens comprises at least one substantially expanded zone and at least one substantially compressed zone.

(‘990 patent, col. 20:53-61) Indeed, Plaintiff does not dispute this. (D.I. 123 at 6 (“[I]t is true that the words following ‘comprising’ all flow from the ‘optical means’ element[.]”))

This leaves the additional language found in dependent claim 21: “The panoramic objective lens according to claim 17, wherein the lens compresses the center of the image and the edges of the image, and expands an intermediate zone of the image located between the center and the edges of the image.” (‘990 patent, col. 21:7-11) Claim 21 appears to be further describing a characteristic of the optical means that was referenced in claim 17 and that is a part of the claimed lens; it does not appear to discuss a separate claim element that would exist in “combination” with the claimed optical means. (*Id.*; *see also* D.I. 111 at 8) As a result, as Defendant argues, the “optical means” appears to be the only element in claim 21’s apparatus claim. (D.I. 111 at 7-8)

In this regard, claim 21 does not appear materially different from the claim at issue in the Federal Circuit’s decision in a key case: *In re Hyatt*, 708 F.2d 712 (Fed. Cir. 1983). In that case, the relevant claim (claim 35) read as follows:

¹⁰ *See also* Manual of Patent Examining Procedure (“MPEP”) § 608.01(m) (“Where a set of claims sets forth a plurality of elements or steps, each element should be separated by a line indentation.”); 37 C.F.R. § 1.75(i) (same).

35. A Fourier transform processor for generating Fourier transformed incremental output signals in response to incremental input signals, said Fourier transform processor *comprising* incremental *means for* incrementally generating the Fourier transformed output signals in response to the incremental input signals.

In re Hyatt, 708 F.2d at 712-13 (emphasis in original). The appellant argued that claim 35 did not correspond to what could be considered a “single means” claim, because the claim “recites several elements, including a Fourier transform processor, transformed output signals, input signals, and a Fourier transform processor responsive to incremental input signals.” *Id.* at 714. The Federal Circuit disagreed. In doing so, it noted that in claim 35, “the invention defined is what follows the word ‘comprising.’” *Id.* And from there, it explained that claim 35 was a “single means” claim. *Id.* This was so not only because of appellant’s prior admission that the claim was not drawn to a “combination”—but also because the “[a]ppellant’s denomination of every noun in the claim as a separate element ignores the fact that these words *function as mere description of the single claimed means*[.]” *Id.* (emphasis added).

In asserting that claim 21 is *not* a “single means” claim and is instead drawn to a combination of elements—Plaintiff makes a multi-step argument, attempting to distinguish claim 21 from the claim at issue in *In re Hyatt*. (D.I. 123 at 5-10) That argument goes as follows:

- (1) *In re Hyatt* was a case where the claim’s preamble was “superfluous” because the “specific language of [claim 35 therein] did not recite anything before ‘comprising’ other than what was also written after”—such that the claim involved only a single means at issue that was described after the word “comprising” (there, the “incremental means for . . .”).
- (2) In our case, both sides agree that the “optical means” element described in claim 17 amounts to one element of claim 21.
- (3) But claim 21 has *more than one element*—thus differentiating it from the claim in *In re Hyatt* (a case which Plaintiff deems “an outlier” in Federal Circuit jurisprudence).

(4) In explaining why claim 21 has more than one claim element, Plaintiff argues this is because the preamble of claim 21 is limiting, which in turn means that the “panoramic objective lens” referenced in that preamble is actually a part of the claim (and its limitations).¹¹

(5) And because claim 21 contains not only the “optical means” element (found in claim 17), but also the “*additional element of the ‘panoramic objective lens’*” (found in claim 21), this means claim 21 has *two* elements in “combination” pursuant to Section 112, paragraph 6 (unlike *In re Hyatt*, where the claim just had one element).

(D.I. 123 at 5-10 (emphasis added)) Said another way, Plaintiff’s position is that “[c]laim 21 is properly drawn to a combination of elements because it sets forth a *separate element*—‘a *panoramic objective lens*’—*in combination with the means element*—‘optical means.’” (*Id.* at 10 (emphasis added); *see id.* at 8 (stating that “the means of claim 21 must occur within a lens, which itself must be panoramic and objective”))

But as Defendant notes, (D.I. 128 at 2-5), Plaintiff’s discussion of *In re Hyatt*—and Plaintiff’s arguments as to why the facts of that case are materially different from our case here—do not hold up under scrutiny. This is so for at least four reasons.

First, and contrary to Plaintiff’s assertion set out above, claim 35 in *In re Hyatt* was *not* a claim that “did not recite anything before ‘comprising’ other than what was also written after[.]” (D.I. 123 at 5) To the contrary, the claim preamble in that case included wording that was not found after the word “comprising”—in that the preamble noted that the apparatus at issue there

¹¹ For its part, Defendant does not dispute that the preamble of claim 21 is limiting, or that the phrase “panoramic objective lens” in the preamble is the antecedent basis for the “lens” described in the body of claims 17 and 21. (D.I. 128 at 5, 9) Thus, the Court will assume herein that the preamble is limiting. *See Pacing Techs., LLC v. Garmin Int’l, Inc.*, 778 F.3d 1021, 1024 (Fed. Cir. 2015).

was a “Fourier transform processor[.]” *In re Hyatt*, 708 F.2d at 712-13; *see also* (D.I. 128 at 2). So Plaintiff’s initial framing of the structure of the claim at issue in *In re Hyatt* is off base.¹²

Second, this fact—i.e., that claim 35’s preamble in *In re Hyatt* contained a descriptor of what the asserted apparatus was—is meaningful here in another respect. In *In re Hyatt*, the Federal Circuit was inquiring as to whether the patentee had claimed an apparatus that itself contained the required “combination” of elements. Unlike with Plaintiff’s position in this case, the *In re Hyatt* Court did not consider the preamble’s reference to a “Fourier transform processor”—i.e., *to the apparatus itself*—to amount to a second claim element that could possibly count as part of the requisite Section 112, paragraph 6 “combination.” This makes sense. The Section 112, paragraph 6 inquiry here is all about determining whether a claimed apparatus has more than one claimed element to it. And *In re Hyatt* underscores why it simply does not make sense to (as Plaintiff attempts to do here) count the claim preamble’s reference *to the apparatus itself* (i.e., claim 21’s reference to a “panoramic objective lens”) as being a *separate element of that very apparatus*. *See also Enfish*, 9 F. Supp. 3d at 1127, 1129-30 (with regard to a claim to a “data storage and retrieval system,” looking to the content of the claim after the word “comprising” in order to assess whether the claimed “system” had more than one

¹² The Court also notes an incongruity with Plaintiff’s argument that the *In re Hyatt* “preamble was . . . superfluous” because it “did not recite anything before ‘comprising’ other than what was also written after.” (D.I. 123 at 5) The idea that a claim preamble includes language in it that relates to the same item as what is “also written after” the word “comprising” is exactly what establishes an antecedent basis in the first place. *See Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003). Indeed, in claim 21, the only phrase in the claim preamble is “The panoramic objective lens according to claim 17”—and the claim body (i.e., what is “also written after” the preamble) also includes the word “lens[.]” (’990 patent, col. 21:7-11) In light of this, it would seem, pursuant to Plaintiff’s logic, that as to the “combination” inquiry here, the preamble of claim 21 is “superfluous”—since the preamble of that claim does “not recite anything before [the claim body] other than what was also written after.” (D.I. 123 at 5; *see also* D.I. 128 at 7)

element—and determining that the claim was a “single means” claim, because it was to a “means for configuring said memory according to a logical table” and because every other requirement of the claim simply described an attribute of the configured logical table); *Ex Parte Lev*, Appeal 2009-004431, 2010 WL 337240, at *2, *7 (B.P.A.I. Jan. 28, 2010) (finding a claim to a “convertible computer system” to be a “single means” claim, where after the word “comprising” the claim simply described a “non-contact means” that was part of the system, and coming to this conclusion despite the fact that the phrase “computer system” was also found in the body of the claim); (D.I. 128 at 1, 4). Said another way, it defies logic to consider the claim to be to a lens that is in “combination” with the optical means, while at the same time noting that the optical means *must be a part of* that very lens. As Defendant noted, “[i]t makes no sense to speak of something being ‘in combination with’ the very structure it is made out of.” (D.I. 128 at 6)

Indeed, in *Ex Parte Manabu Iwamoto*, Appeal 2009-004015, 2010 WL 4789630 (B.P.A.I. Nov. 23, 2010), the Board of Patent Appeals and Interferences (“Board”) of the USPTO came to just this same conclusion. In that case, the Board had previously determined that claim 11 of the patent at issue was a “single means” claim, and the appellants had requested rehearing, *inter alia*, of that decision. *Ex Parte Manabu Iwamoto*, 2010 WL 4789630, at *3. The claim at issue was described by the Board as one to an “ink container . . . comprising storage means . . . which stores the numeric information for setting an inkless time corresponding to the time corresponding to the kind of ink therein.” *Id.* (internal quotation marks and citation omitted). In their filing, the appellants had argued that the “means recitation appears in combination with another recited element, presumably an ink container.” *Id.* In rejecting that position, the Board, citing to the Federal Circuit’s decision in *In re Hyatt*, said as follows:

Claim 11, when read in accordance with the precepts of English grammar . . . calls for an ink container *comprising*[] the storage

means. This means, both in plain language and in long-accepted claim construction principles, that the ink container *includes* the storage means, and not that the ink container is another element recited along with the means recitation. In this respect, the claim is no different from the claim in *Hyatt*, which recited a Fourier transform processor comprising incremental means for incrementally generating the Fourier transformed incremental output signals. The Federal Circuit rejected the argument that the claim recited several elements, notably a Fourier transform processor (comparable to the claimed ink container), in combination with the means element, when the former, as here, was recited as *comprising* the latter.

Id. (emphasis in original) (citing *In re Hyatt*, 708 F.2d at 714). Noting that “[c]laim 11 is, at its essence, a device or apparatus claim” and that “[a]pparatus claims cover what a device is,” the Board noted that “if [a]ppellants’ argument were accepted, claim 11 would be interpreted as including an ink container and a storage means as separate elements recited in combination, while at the same time a storage means is a part of the ink container element”; the Board stated “[s]uch an interpretation defies commonly and widely accepted claim construction principles.”

Id. at *4.¹³

Third, Plaintiff’s argument is undercut by its inability to clearly identify what exactly (other than a reference to the overall apparatus itself) is said to amount to the additional, second claimed element of the apparatus in question. In its briefing, the one place where Plaintiff seems to attempt this is when it makes reference to Figures 15 and 16 of the patent-in-suit. (D.I. 123 at 8-9) There, Plaintiff states that while Figure 15 depicts a cross-section of an embodiment of the entire “panoramic objective lens,” Figure 16 shows only the “optical means” element of that

¹³ See also *In Ex Parte Mustonen*, Appeal 2009-006322, 2010 WL 2150085, at *8 (B.P.A.I. May 26, 2010) (rejecting a claim to an apparatus pursuant to Section 112, paragraph 6 as a “single means” claim, because the claim body contained only (a) a “routing means” element and (b) a second limitation that “merely recites the claimed apparatus’ intended function or field of use”).

panoramic objective lens. (*Id.* at 8) Plaintiff then argues that absent from Figure 16 are certain parts of the lens that are depicted in Figure 15—such as “part B1 [which is described in the patent as a part that] *forms the body of the objective lens . . .*” (*Id.* (emphasis in original, internal quotation marks omitted) (quoting '990 patent, col. 16:18)) These other portions of the panoramic objective lens depicted in Figure 15, Plaintiff seems to say, help to show that claim 21 does have additional element(s) to it other than the claimed optical means. (*Id.*) But the problem here for Plaintiff is that in claim 21, the patentee did not facially claim the inclusion of an additional element, like a “body” portion of the objective lens. And Plaintiff does not otherwise explain how what is depicted in Figure 15 is linked to a separate claimed element here.

Fourth, the Court disagrees with Plaintiff’s characterization of *In re Hyatt* as an “outlier—the only Federal Circuit case to invalidate a single-means claim”—at least to the extent that this language is meant to suggest that federal courts should not be assessing claims to see whether they amount to “single means” claims (or that, in some way, *In re Hyatt* should be limited to its facts, or treated as bad law). (D.I. 123 at 5 (emphasis omitted)) After *In re Hyatt*, the Federal Circuit has continued to cite to the case for the proposition that “single means claims claim too much.” *Amgen Inc. v. Sanofi, Aventisub LLC*, 850 F. App’x 794, 797 (Fed. Cir. 2021) (citing *In re Hyatt*, 708 F.2d at 714); *see also Fiers v. Revel*, 984 F.2d 1164, 1171 (Fed. Cir. 1993) (same). In certain instances, district courts have relied on *In re Hyatt* to identify examples of or to discuss “single means” claiming (on their way to finding certain patent claims invalid). *See, e.g., Enfish*, 9 F. Supp. 3d at 1129-30 (citing *In re Hyatt*, 708 F.2d at 714); *Amgen, Inc. v. Chugai Pharm. Co.*, CIV. A. No. 87-2617-Y, 1989 WL 169006, at *53-54 (D. Mass. Dec. 11, 1989) (same), *aff’d in relevant part*, 927 F.2d 1200 (Fed. Cir. 1991). And the USPTO has (often) found “single means” claims non-enabled. *See, e.g., Ex Parte Bowkett*, Appeal 2012-

008694, 2015 WL 5170998, at *3-5 (P.T.A.B. Aug. 31, 2015) (citing *In re Hyatt*, 708 F.2d at 714); *Ex Parte Johnson*, Appeal 2010-003268, 2012 WL 4460617, at *9-10 (B.P.A.I. Sept. 24, 2012) (same).

Therefore, for all of the reasons set out above, the Court determines that claim 21 is a “single means” claim. Plaintiff has made no compelling argument explaining how claim 21 includes a second qualifying element that can transform it into an apparatus with a “combination” of elements, pursuant to the meaning of Section 112, paragraph 6.¹⁴

D. Enablement

Having found claim 21 is a single means claim, the Court will assess validity (or lack thereof) pursuant to the enablement requirement.

Single means claims are “properly rejected for what used to be known as ‘undue breadth’ but has since been appreciated as being, more accurately, based on [the enablement requirement] of the first paragraph of [Section] 112.” *In re Hyatt*, 708 F.2d at 714; *see also In re Borkowski*, 422 F.2d 904, 952 (C.C.P.A. 1970) (explaining that when a disclosure within a patent’s specification is not commensurate with the subject matter encompassed by a claim, such a

¹⁴ Plaintiff also insists that the Motion for Judgment on the Pleadings should be denied because this “single means” claim issue should have been raised and addressed as part of the *Markman* briefing process. (D.I. 123 at 11-12) The Court does not see why that is so. As noted above, the issue is one of law—and it is an issue that was properly invoked via a motion for judgment on the pleadings, which is a type of motion that a defendant is perfectly permitted to file. Moreover, herein the Court is not “construing” any particular term in claim 21—at least not in the sense that it is being called upon to resolve a dispute over the definition of a particular word or set of words found in that claim (or a dispute over whether a claim preamble is limiting). (D.I. 128 at 9-10) Additionally, since the issue at play is lack of enablement, and since that issue is not typically addressed as part of the *Markman* process, *see Satius Holding, Inc. v. Samsung Elecs. Co.*, Civil Action No. 18-850-CJB, 2024 WL 5090284, at *8 n.9 (D. Del. Dec. 12, 2024); *Spectrum Pharms., Inc. v. Innopharma, Inc.*, Civil Action No. 12-260-RGA-CJB, 2014 WL 4247182, at *2 (D. Del. Aug. 26, 2014), it makes total sense that Defendant did not raise it there. (D.I. 128 at 10)

disclosure is unduly broad and non-enabled). When a functional claim does not meet the requirements of Section 112, paragraph 6, it “is attempting to claim in functional terms unbounded by any reference to structure in the specification.” *Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008); *see also Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1383 (Fed. Cir. 2009).

Here, for the reasons now set out above, the Court has concluded that: (1) claim 21 is a “single means” claim; and (2) it thus cannot qualify as a means-plus-function claim, in that it does not meet Section 112, paragraph 6’s requirements.¹⁵ Such claims are not enabled—i.e., they do not teach one skilled in the art how to make and use the invention without undue experimentation—because they “cover[] every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor.” *In re Hyatt*, 708 F.2d at 714 (citing *Morse*, 56 U.S. (15 How.) at 112)); *see also Morse*, 56 U.S. (15 How.) at 113 (invalidating a claim in which the inventor did “not confine himself to specific machinery or parts of machinery”); *Amgen*, 850 F. App’x at 797; *Fiers*, 984 F.2d at 1171 (“Claiming all DNAs that achieve a result without defining what means will do so is not in compliance with [Section 112]; it is an attempt to preempt the future before it has arrived.”). Courts need not perform the traditional, fact-intensive enablement inquiry in this scenario, *see, e.g., In re Hyatt*, 708 F.2d at 714-15; *Enfish*, 9 F. Supp. 3d at 1130; *Ex Parte Manabu Iwamoto*, 2010 WL 4789630, at *4-5,

¹⁵ In prior, related cases, the parties had agreed that claim 17 of the '990 patent was governed by Section 112, paragraph 6, and so the Court there assumed *arguendo* that it was. *ImmerVision, Inc. v. LG Elecs. U.S.A., Inc.*, Civil Action No. 18-1630-MN-CJB, Civil Action No. 18-1631-MN-CJB, 2021 WL 7209240, at *5 (D. Del. Dec. 14, 2021), *report and recommendation adopted in part, rejected in part*, 2022 WL 903860 (D. Del. Mar. 28, 2022). With Defendant here having now squarely challenged claim 21 as to that issue (in the Court’s view, successfully), such an assumption no longer applies.

and indeed here neither party is suggesting that the Court do so, (D.I. 123; D.I. 128 at 9).¹⁶

Rather, here, the fact that claim 21 is a single means claim in itself is determinative. *See Amgen*, 850 F. App'x at 797 (“The answer is that single means claims claim too much.”); *In re Hyatt*, 708 F.2d at 714-15; *Enfish*, 9 F. Supp. 3d at 1130; *Ex Parte Manabu Iwamoto*, 2010 WL 4789630, at *5.¹⁷

As claim 21 of the '990 patent is single means claim that is not fully enabled, the claim is invalid under the first paragraph of Section 112. For this reason, the Court recommends that Defendant's Motion for Judgement on the Pleadings be granted.¹⁸

IV. CONCLUSION

For the foregoing reasons, the Court concludes that claim 21, the sole claim at issue in this action, is invalid for lack of enablement. It therefore recommends that Defendant's Motion for Judgment on the Pleadings be GRANTED. As that recommendation, if adopted, would be case dispositive, the Court in turn recommends that the parties' Motions for Claim Construction be DENIED as MOOT.

¹⁶ Plaintiff's arguments concerning enablement hinge on the Court finding that claim 21 is *not* a single means claim. (D.I. 123 at 10-11)

¹⁷ *See also* MPEP § 2164.08(a) (“A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an enablement rejection under 35 U.S.C. § 112(a) or pre-AIA 35 U.S.C. § 112, first paragraph.”); *Ex Parte Johnson*, 2012 WL 4460617, at *9.

¹⁸ As was noted above, when Defendant renewed its Motion for Judgment on the Pleadings, the parties also re-filed their respective Motions for Claim Construction. (D.I. 176; D.I. 178) In those motions, the parties ask the Court to construe the terms “panoramic objective lens” and “optical means for projecting a panorama into an image plane of the objective lens.” (D.I. 175 at 2, 17) With the Court recommending that the subject of those motions (claim 21) be found invalid, it relatedly recommends that the Motions for Claim Construction be denied as moot. *See Satiush Holding, Inc.*, 2024 WL 5090284, at *11 (declining to construe remaining terms after the single asserted claim was held invalid).

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b)(2). The failure of a party to object to legal conclusions may result in the loss of the right to *de novo* review in the district court. *See Sincavage v. Barnhart*, 171 F. App'x 924, 925 n.1 (3d Cir. 2006); *Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987).

The parties are directed to the Court's Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated March 7, 2022, a copy of which is available on the District Court's website, located at <http://www.ded.uscourts.gov>.

Dated: July 24, 2025


Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE