

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAMBRIDGE INDUSTRIES USA, INC.,

Petitioner

v.

APPLIED OPTOELECTRONICS, INC.,

Patent Owner

Case: IPR2025-00435

U.S. Patent No. 10,042,116

PETITIONER'S REQUEST FOR DIRECTOR REHEARING

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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Exhibit	Short Name	Description
Ex. 1001	'116 Patent	U.S. Patent No. 10,042,116
Ex. 1002	'116 File History	File History of U.S. Patent No. U.S. Patent No. 10,042,116
Ex. 1003	Kirk Declaration	Declaration of Dr. Andrew G. Kirk
Ex. 1004	Kirk CV	<i>Curriculum Vitae</i> of Dr. Kirk
Ex. 1005	Soldano	U.S. Patent No. 9,768,901
Ex. 1006	Lurie	U.S. Patent No. 5,351,327
Ex. 1007	Tomita	U.S. Patent No. 4,978,193
Ex. 1008	Shen	U.S. Patent Pub. No. US 2016/0349451
Ex. 1009	Shen provisional	U.S. Prov. Patent Appln. No. 62/166015
Ex. 1010	Kanazawa	Japanese Patent Pub. JP 2012-034314A
Ex. 1011	—	Kanazawa English translation
Ex. 1012	Sasaki	Japanese Patent Pub. JP 2003-215371A
Ex. 1013	—	Sasaki English translation
Ex. 1014	Claim Terms	Joint Claim Construction And Pre-Hearing Statement in <i>Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.</i> , No. 3:24-cv-01010-JD (N.D. Cal.)
Ex. 1015	Scheduling Order	Scheduling Order dated August 7, 2024, in <i>Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.</i> , No. 3:24-cv-01010-JD (N.D. Cal.)
Ex. 1016	Excerpt from Infringement Claim Charts	Excerpt from Patent Owner's L.R. 3-1 & 3-2 Disclosures, June 6, 2024, in <i>Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.</i> , No. 3:24-cv-01010-JD (N.D. Cal.)

Exhibit	Short Name	Description
Ex. 1017	Pisano Declaration	Declaration of Nicola A. Pisano collecting exemplary Stay Orders entered by Judge Haywood Gilliam and Data Showing Success Rates for Motion to Stay
Ex. 1018	Interim Process FAQs	FAQs for Interim Processes for PTAB Workload Management
Ex. 1019	Claim Construction Reply Brief	Plaintiff's Reply Claim Construction Brief, D.I. 37, in <i>Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.</i> , No. 3:24-cv-01010-JD (N.D. Cal.)
Ex. 1020	Pisano Declaration	Declaration of Nicola Pisano with Annex of analysis of invalidity decisions in 53 district courts in 2024 through mid-2025

I. INTRODUCTION

Cambridge Industries USA Inc. (“CIG USA” or “Petitioner”) submits this request for Director rehearing on grant of Applied Optoelectronics, Inc.’s (“AOI” or “Patent Owner”) request for discretionary denial of IPR2025-00435. As set forth in Paper No. 11, the challenged patent, U.S. Patent No. 10,042,116 (“the ’116 patent”), issued on August 7, 2018, “seven” years before the instant IPR petition was filed on January 17, 2025 (actually, a period of 6 years, 5 months and 10 days). According to Paper No. 11, by January 17, 2025, the Patent Owner had “settled expectations” that the validity of the ’116 patent would not be challenged.

The “settled expectations” criterion is a major departure from settled patent law, is refuted by district court data on patent invalidity determinations, undermines Congressional purpose in enacting the IPR provisions of the AIA, and its application here violates the Administrative Procedure Act, 5 U.S.C. § 553(b), (c); 35 U.S.C. §§ 2(b)(2), 316(a). For all the legal and policy reasons further explained below, Petitioner requests that the Paper No. 11 be withdrawn, and that the Petition IPR2025-00435 be reinstated and forwarded to a merits panel for an institution decision.

II. REASONS FOR REQUESTING REHEARING

When Petitioner filed its Opposition (Paper No. 9) to Patent Owner’s request for discretionary denial herein, the Director had not yet issued decisions discretionarily

denying an IPR petition based on the new “settled expectations” criterion. Because the statutory framework presumption of patent validity provides no suggestion that patent age is in any way correlated to validity, Petitioner lacked context with which to formulate a cogent argument responsive to this criterion. *See* Paper No. 9 at 13 (“It cannot be the case that a never-asserted patent achieves a patina of validity simply by the passage of time.”)

In the many decisions granting requests for discretionary denial issued subsequent to filing of Petitioner’s Opposition, the Office has adopted a bright-line test: a patent in existence more than six years at the time an IPR is filed is entitled to “settled expectations” immunizing it from IPR challenge. With a more fulsome record showing how “settled expectations” now will be applied, Petitioner offers the following arguments why this criterion should not be applied at all, nor in this instance, which arguments could not previously have been submitted in Paper No. 9.

A. “Settled Expectations” Is Without Legal Precedent

After a thorough review of the case law, Petitioner could find no caselaw from a United States District Court, in any district, nor appellate court, in which the *age* of a patent alone was considered indicative of non-invalidity. This is not surprising. 35 U.S.C. § 282 states that “a patent shall be presumed to be valid. ... The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting

such invalidity.” Petitioner located no case law suggesting that the age of patent in any way effects the burden of proving patent invalidity. In analogous situations, where a prior art reference had previously been considered during prosecution, or a patent had survived post-grant review, there was no “heightened” burden of proof required to prove invalidity. *See, Sciele Pharma, Inc., v. Lupin Ltd.*, 684 F.3d 1253, 1260 (Fed. Cir. 2012)(citing *Microsoft Corp. v. i4i Ltd. Partnership*, 564 U.S. 91, 131 S. Ct. 2238, 2245-46, 180 L. Ed. 2d 131 (2011)(“Nothing in § 282’s text suggests that Congress meant . . . to enact a standard of proof that would rise and fall with the facts of each case.”)); *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 958 (Fed. Cir. 2014).

The foregoing caselaw is reflected in the Federal Circuit’s jury instruction on validity, which includes no provision for a “heightened” presumption based on the age of the patent at the time it is asserted, or indeed any other case-specific factor. *See* Federal Circuit Bar Association, Model Patent Jury Instructions (May 2020), Instruction 4.1 Invalidity—Burden of Proof (“To prove that any claim of a patent is invalid, [alleged infringer] must persuade you by clear and convincing evidence, that is, you must be left with a clear conviction that the claim is invalid.”)

Although the age of a patent may provide a convenient bright-line test for admission to the IPR process, as explained below, it lacks support in the statutory framework, caselaw and practice. Reasons why this is so are discussed below.

B. District Courts Routinely Invalidate Aged Patents

Assuming the “settled expectations” criterion is intended to have a rational basis, examination of real-life data from district courts should be informative. If the age-related assumption is valid, then it should find some support in empirical evidence. Conversely, empirical data showing that aged patents are frequently invalidated would refute reliance on the “settled expectations” as a valid criterion.

Using data collected on the LexMachina website, Petitioner compiled a “snapshot” of U.S. district court litigations decided in calendar year 2024 through present, in which a judge or jury determined a patent to be invalid as anticipated or obvious over prior art, i.e., on the same bases employed in an IPR proceeding.¹ Petitioner located 53 such cases that involved a total of 86 patent invalidity determinations. For each of those 86 patents, Petitioner identified the issue date of the patent and its age when first asserted in litigation. Exhibit 1020 includes a spreadsheet of the details for those 53 cases, as well as the date the Complaint was filed. If “settled expectations” was a reasonable proxy for likelihood of invalidation, given the age of a patent, then very few “aged” patents should have been adjudged invalid.

¹ Selection of calendar 2024 through mid-2025 for this analysis provides a manageable data set. According to LexMachina, more than a thousand cases were decided since 2001 in which one or more patents were adjudged invalid. In view of the expense of undertaking an exhaustive review of those cases, Petitioner submits that its snapshot likely is representative of the larger data set.

As reported in Exhibit 1020, however, 26 of 86 patents found invalid in the snapshot, or about **30%**, had been issued six or more years at the time they were asserted. Considering that these determinations were made by generalist judges, layperson juries, and under a “clear and convincing” evidence burden of proof, it is plain that a much higher percentage would have been invalidated in the IPR context. While not a rigorous analysis, the data strongly suggests that there is *little to no correlation* between the age of a patent and the likelihood that it will not be held invalid. As explained below, there are good reasons why no correlation should be expected, and how “settled expectations” undermines the purpose of the AIA, Congressional intent, and is contrary to public interest.

C. Advanced Search Capabilities Make New Patents Stronger

Given advancements in Internet searching, and the expansion of national patent databases, patent practitioners and USPTO Examiners have at their disposal vastly expanded prior art search capabilities than a decade or even a few years ago. Consequently, recently issued patents are likely to recite more exhaustive collections of prior art, both patents and printed publications, than patents that issued a decade or more ago.²

² While this explosion of prior art citations may have impacted a Patent Examiner’s ability to review each reference, the vast amounts of prior art made of record during examination provide an ample basis for post-grant review of recently issued patents.

The “settled expectations” criterion now used in support of discretionary denials assumes that patents issued within six years or less of filing of an IPR petition are more vulnerable to invalidity challenge. That assumption ignores that recently issued patents cite more extensive lists of prior art references, considered by Examiners, than ever before. Yet it is far more likely that relevant prior art references were not easily accessible during examination of older (> 6 years) patents, rendering aged patents more susceptible to prior art challenge than recently issued patents.

Here, the Patent Owner’s “settled expectations” should not foreclose the Petitioner’s and the public’s right to challenge the validity of the ’116 patent before a PTAB panel of technical experts using a “preponderance of the evidence” standard. Application of “settled expectations” in IPR2025-00435 results in a discretionary denial decision that unfairly increases the Patent Owner’s leverage to harm Petitioner’s business and distorts the balance embodied in the IPR provisions of the AIA.

Further, the procedure set out in Exhibit 2001 likely is improper as failing to comply with the notice-and-comment rulemaking requirements of the APA. *See* 5 U.S.C. § 553(b), (c); 35 U.S.C. §§ 2(b)(2), 316(a).

As noted in Paper No. 9, discretionary denial is not authorized for any basis other than set forth in 35 U.S.C. § 314(a). Instead, discretion whether to institute an

IPR is limited to the bases authorized in 35 U.S.C. § 314; 35 U.S.C. § 316(a)(2). *Cf.*, *SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 363-364 (2018).

D. The Settled Expectations Criterion Lacks Nuance

Petitioner submits that unless the Patent Owner can establish some sort of transactional history with a patent, he should have no greater expectation of validity than accorded by the standard presumption of validity that attaches to every patent, regardless of age. Even that presumption of validity exists only until it is rebutted, by applicable burden of proof in the district court or in a Patent Office contested case.

If, however, a Patent Owner can show that it previously has successfully litigated a patent, or that the patent has undergone post-grant proceedings, or been the subject of multiple arms-length licensing deals, then the Patent Owner might reasonably have a greater expectation that the patent is not invalid. Similarly, if the inventions claimed in the asserted patent had achieved commercial success, the Patent Owner might have a subjective expectation of patent validity. Yet even in such circumstances, the patent remains subject to a validity challenge in U.S. district court: the most weight that a successful licensing history or commercial success of a patented product provides is as secondary considerations of non-obviousness. The notion of “settled expectations” – as currently applied – is inconsistent with the minimal weight that is accorded by caselaw for a secondary considerations of non-obviousness.

While a proper balance possibly could be achieved for use of the “settled expectations” criterion in discretionary denial requests, that balance must include *other* bases – akin to secondary considerations of non-obviousness – for a patent owner’s expectation to be reasonable. Petitioner submits that balance can best be attained only after a proper rulemaking and public comment period in accordance with the APA.

Further, as applied in recent decisions, the Office considers the time between issuance and filing of an IPR petition (sometimes just knowledge of the existence of a patent) as a measure of the Patent Owner’s entitlement to settled expectations. As noted above, the “cut-off” appears to be six years. Petitioner submits that if any version of a “settled expectations” criterion is employed, the duration should be measured from issuance of the patent to date of knowledge of an invalidity challenge by the accused infringer, not when an IPR is filed.

Logically, once the Patent Owner puts the validity of his patent in question by asserting it and learns of the prior art supporting an invalidity defense, the “clock” on the Patent Owner’s expectations of validity should stop. There is no reason why validity of the asserted patent should depend on the vagaries of district court scheduling. In the now-stayed parallel litigation, pursuant to the Patent Local Rules of the Northern District of California, Petitioner served its Invalidity Contentions in **July 29, 2024**, explaining in detail why the ’116 patent is invalid. Patent Owner should

not be entitled to another six months of “settled expectations” that its patent was valid counting to when the IPR was filed in **January 2025**. Properly accounted, the ’116 patent had been in existence *less than 6 years* (5 years, 11 months and 22 days) when the Patent Owner was first informed by Petitioner that the ’116 patent is invalid, and accordingly discretionary denial should have been *denied*.

Moreover, there is good reason for the “settled expectations” clock to *exclude* the one-year statutory period during which the IPR may be filed under 35 U.S.C. § 315(b). To permit otherwise admits to all sorts of gamesmanship by the Patent Owner, as was the case in the parallel litigation here. For example, the Patent Owner, should not be entitled to assert that its “settled expectations” about patent validity were “enhanced” where the Petitioner/Defendant spent several months trying to present its invalidity defenses to the Patent Owner in an effort to quickly resolve the litigation and resorted to filing an IPR only after the Patent Owner adopted unreasonable settlement positions. Awarding the Patent Owner a *benefit* for engaging in bad-faith tactics in thwarting early dispute resolution is against public policy.³

³ Specifically, in the parallel litigation, Patent Owner dodged repeated good-faith discussion requests by Petitioner to discuss invalidity of the patent shortly after the Complaint was filed.

E. “Settled Expectations” Undermines Public Policy Goals

There can be no doubt that one purpose in enacting the IPR provisions of the AIA was to reduce the burden on operating companies by providing a streamlined procedure for weeding out improvidently granted patents. C.T. Zirpoli, Cong. Rsch. Serv., R48016, “The Patent Trial and Appeal Board and Inter Partes Review, Summary (2024).” While the cost of pursuing an IPR challenge is not insubstantial, e.g., a few hundred thousand dollars, it pales in comparison to the cost of defending a district court patent litigation. Moreover, the availability of technically-skilled PTAB administrative patent judges and a preponderance-of-evidence standard for IPRs renders the process far more balanced than pursuing an invalidity challenge before generalist judges and lay juries, who are required to apply a clear-and-convincing evidentiary standard. The IPR procedure reflects a congressional balancing of the limited monopoly offered by patents against the need for a vibrant U.S. industry to avoid being burdened by improvidently granted patents. *See e.g.*, 157 Cong. Rec. S1053 (daily ed. Mar. 1, 2011) (statement of Sen. Whitehouse).

“Settled expectations” as currently applied enhances the leverage of certain non-practicing entities (“NPEs”), who often acquire and assert patents more than a dozen years old.⁴ Those patents typically were never associated with a commercially

⁴ Petitioner recognizes that many non-practicing entities, such as universities and

successful product or a successful operating company. Instead, many years after issuance, a clever plaintiff's attorney finds an imaginative way to interpret the claims – never intended by the patentee – to monetize the patent against operating companies. Multiple cases are filed in district courts that have accelerated trial schedules with the goal of extracting rent from the targeted companies; the daily patent litigation docket reports are replete with such filings.

As currently applied in discretionary denial decisions, “settled expectations” will embolden such rent-seeking. The criterion exalts “paper” patents that were never put into practice or meant to cover modern technologies, and accordingly survived to an advanced age because the patents were never worth challenging. Perversely, NPEs asserting such patents have no greater expectation of validity than the standard presumption. But now the ability of an operating company to quickly and inexpensively resolve a patent assertion based on an aged patent via the IPR pathway appears to be foreclosed. “Settled expectations” will result in increased burden on the courts, operating companies (especially start-up companies least able to afford protracted infringement litigation), and ultimately higher costs to the consumer.

independent inventors form a vital part of the U.S. innovation industry; its comments here are directed to the NPEs that are created solely to pursue assertion of aged and commercially useless patents.

“Settled expectations” will have yet another deleterious effect on U.S. commerce by encouraging patent owners to wait “just a bit longer” before pursuing rent-seeking litigation. Because recovery of patent infringement damages has a six-year look-back window, “settled expectations” will encourage delayed filing of suits until six years after patent issuance. In that way, the patent owner can be assured of six years of patent damages, while its patent will be invulnerable to IPR challenge.

Further, “settled expectations” will adversely impact consumers’ access to low-cost pharmaceuticals. The practice of “evergreening” patents in the pharmaceutical industry is a well-known phenomenon. *See, e.g.,* O. Gurgula, “Strategic Patenting by Pharmaceutical Companies – Should Competition Law Intervene?,” IIC (2020) 51:1062–1085. As observed in practice, a drugmaker obtains a patent on its active pharmaceutical ingredient (“API patent”). Years later, to extend the protection on its API, secondary patents are filed on modifiers or reformulations, e.g., to create an extended-release version of the drug.

Depending upon the strength of the API patent, a generic drugmaker may elect not to challenge the validity of the API patent, and instead wait for the API patent to expire. Prior to the introduction of “settled expectations,” a generic drugmaker had no incentive to challenge the secondary patents until after expiration of the API patent. Now, however, by the time the API patent expires, the secondary patents may be of an

age such that any IPR challenge will be subject to discretionarily denial based on “settled expectations.” This all-too-likely scenario further highlights why the “settled expectations” criterion, as currently applied, may profoundly distort market forces and the public’s access to affordable drugs.

F. “Settled Expectations” Bolsters Weak Patents

One basis for enacting the Declaratory Judgment Act, 28 U.S.C. § 2201, was to address the existence of so-called “scarecrow” patents. *See, Teva Pharms. USA, Inc. v. Novartis Pharms. Corp.*, 482 F.3d 1330, *1336 and fn. 2 (Fed. Cir. 2007)(*citing Bresnick v. United States Vitamin Corp.*, 139 F.2d 239, 242 (2nd Circ. 1943)). Before enactment of that statute, an operating company accused of infringing a patent could not, for lack of a justiciable controversy pursue a validity challenge of the asserted patent until suit was filed. An unscrupulous patent owner could therefore level infringement accusations against a manufacturer and its customers, disrupting their businesses, without concern about defending against a validity challenge. The Declaratory Judgment Act changed all that by offering aggrieved parties an opportunity to challenge a patent even if the patent holder did not itself file suit. *Id.*

The IPR provisions of the AIA extended that relief to the vastly more affordable administrative context. In many NPE cases, a credible threat of filing an IPR often can result in withdrawal of the infringement accusation or a substantially more favorable

settlement. Application of the “settled expectations” will deny that avenue of relief, thereby breathing unwarranted life into near-dead patent assets, deny operating companies an effective tool for avoiding rent-seeking, and ultimately increase costs to the consumer *with no benefit*.

G. “Settled Expectations” Should Require A Patent Owner Proffer

For all of the reasons described above, “settled expectations” should be jettisoned. If the Office wants “settled expectations” as a basis for discretionary denial, the Patent Owner should be required to submit a proffer in its discretionary denial brief for the basis of its supposed expectation of validity – beyond merely noting how long the challenged patent has been in existence. That proffer could take the form of a declaration detailing the licensing history of the patent, amounts derived therefrom, indicia of industry recognition, evidence of commercial success of products embodying the claimed invention, or any of the other myriad considerations that inform secondary considerations of non-obviousness. Such a proffer, while far from conclusive, would at least provide *some* basis for the Patent Owner to have formed a reasonable opinion that the challenged patent was not invalid.

There is a truism that says, “With age comes wisdom.” Yet with aged patents, especially those – as here – improvidently granted for lack of prior art accessibility, with age comes only age, and nothing more.

III. CONCLUSION

Grant of discretionary denial in IPR2025-00435 was arbitrary and contrary to caselaw, statute and public policy. Petitioner requests that IPR2025-00435 be reinstated and forwarded to a merits panel for an institution decision.

Date: July 21, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), 42.105, the undersigned hereby certifies that true and correct copies of the above-captioned PETITIONER'S REQUEST FOR DIRECTOR REHEARING and all associated exhibits were served in their entirety on July 21, 2025, upon the Patent Owner at the correspondence address of record for the subject patent as listed on the USPTO's Patent Center via Priority Mail Express®:

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Date: July 21, 2025

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