

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioners,

v.

XIFI NETWORKS R&D, INC.,
Patent Owner.

Case No. PGR2025-00068

U.S. Patent No. 12,169,756

**PETITIONERS' OPPOSITION TO PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL OF INSTITUTION**

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. SETTLED EXPECTATIONS WEIGH AGAINST DENIAL	2
III. INSTITUTION WOULD EFFICIENTLY USE BOARD RESOURCES	3
IV. THE EXAMINER ERRED IN ALLOWING THE '756 PATENT	4
V. ON BALANCE, THE <i>FINTIV</i> FACTORS WEIGH AGAINST DISCRETIONARY DENIAL	6
A. Factor 4: Petitioners' Stipulation Weighs Heavily Against Denial	6
B. Factor 1: The District Court's Likelihood to Grant a Stay If the PGR Is Instituted Is Neutral	11
C. Factor 2: The Proximity of the District Court Trial and The Board's Final Written Decision Is Neutral.....	12
D. Factor 3: The Parties' Limited Investment in the District Court Litigation Weighs Against Discretionary Denial.....	14
E. Factor 5: Petitioners Being the District Court Defendants Does Not Outweigh the Factors Weighing Against Discretionary Denial	15
VI. THE MERITS OF THE PETITION ARE STRONG.....	15
A. Patent Owner's "Gap-Filling" Criticisms	17
B. The Chincholi/Clegg Combination Is Motivated by the References and Predictable to Implement.....	18
C. The Petition's Implementation Analysis Is Grounded in References	19
VII. CONCLUSION.....	20

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

TABLE OF EXHIBITS

Exhibit	Description
1001-1018	<i>Previously presented.</i>
1019	[Intentionally Omitted]
1020	Patent Owner's March 26, 2025 P.R. 3-1 Infringement Contentions
1021-1022	[Intentionally Omitted]
1023	Eastern District of Texas Calendar Events Set for October 19, 2026 (Oct. 9, 2025, 4:50 PM)
1024	Excerpt of Federal Court Management Statistics (June 30, 2025), https://www.uscourts.gov/sites/default/files/document/fcms_na_dist_profile0630.2025.pdf

I. INTRODUCTION

The Director should deny Patent Owner's request for discretionary denial (Paper 8) ("DD Request"). The challenged patent is one of eleven closely related patents that Patent Owner only recently obtained on a previously dormant patent family and then abruptly asserted against a long-standing industry participant. Petitioners have challenged all eleven patents, three by PGR.

The recently issued patents each lack the settled expectations that the Director has repeatedly emphasized. For example, the '756 patent was not filed until July 29, 2024, and it issued less than one year ago, on December 17, 2024. Board review would be highly efficient given the interconnected and highly technical nature of the proceedings: the eleven patents have a common ancestor and share the same specification, and the claims have a high degree of overlap.

Institution is also warranted because of the lack of rigorous examination across the patent family. Nearly all of the patents issued through Track One prioritized examination with minimal substantive review, creating a pattern of expedited allowances without thorough prior art consideration.

District Court timing also militates against discretionary denial. The (tentative) trial date is a year away and remains subject to change. These petitions were also filed at the beginning of the litigation, before any substantive discovery or claim construction proceedings took place. The parties are in the early stages of discovery,

and any claim construction hearing is more than six months away.

Petitioners' unusually broad stipulation mitigates the risk of duplication across forums by extending beyond standard *Sotera* terms: Petitioners stipulate that they will not pursue in district court any combinations that include Chincholi or Clegg—even combinations with references that could never be raised in an IPR.

Finally, the merits of Petitioners' substantive arguments are strong, further supporting denying Patent Owner's request.

II. SETTLED EXPECTATIONS WEIGH AGAINST DENIAL

The '756 patent is in the same family as U.S. Pat. Nos. 11,818,591 ("591 patent"), 11,849,337 ("337 patent"), 11,856,414 ("414 patent"), 11,974,143 ("143 patent"), 11,950,105 ("105 patent"), 12,003,976 ("976 patent"), 12,015,933 ("933 patent"), 12,114,177 ("177 patent"), 12,190,198 ("198 patent"), and 12,250,564 ("564 patent") (collectively, the "Challenged Patents."). Each Challenged Patent issued only within the past two years. Thus, each lacks settled expectations. *Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00433, Paper 11 at 2 (Director June 27, 2025).

Patent Owner's DD Request does not even address settled expectations. That silence is all the more telling, because Patent Owner "does not contend that any XiFi apparatus, device, process, method, act, or other instrumentality practices any of the asserted claims." EX1020 at 6. The Director has previously found that lack of

previous application of challenged claims “in [Petitioners'] particular technology space” contributes to a lack of settled expectations as to the validity of this claims. *See Shenzhen Tuozhu Tech. Co., Ltd. v. Stratasy, Inc.*, IPR2025-00438, Paper 10 at 3 (Director July 17, 2025). Indeed, the Challenged Patents were never asserted in any lawsuit until this one, and Patent Owner has not filed any other suits since. There are no “settled expectations” that would inure to Patent Owner’s benefit.

Patent Owner’s lack of settled expectations is further demonstrated by the recency of its enforcement. Patent Owner alleges that the Challenged Patents enable Wi-Fi 7 features. EX1018, ¶ 2. Samsung released its first Wi-Fi 7 products in 2024, and Patent Owner filed suit in December 2024—less than a year later. This rapid assertion against newly released products confirms the absence of any settled expectations regarding validity of the challenged claims.

III. INSTITUTION WOULD EFFICIENTLY USE BOARD RESOURCES

Referring all eleven petitions to the Board would be an efficient use of Board resources, which further weighs against discretionary denial. *Embody, Inc. v. LifeNet Health*, IPR2025-00248, Paper 13 at 3 (Director June 26, 2025). There is significant overlap among the petitions. Chincholi appears in all eleven petitions, providing the fundamental teachings for the obviousness grounds. Riggert appears in seven of the eight IPR petitions, and Clegg appears in seven petitions spanning both IPRs and PGRs. The consistent use of these core references makes analysis of one petition

highly informative for the others.

Further, Patent Owner alleges the Challenged Patents cover “foundational” technologies and enable Wi-Fi 7 features that are standardized across the industry. EX1018, ¶ 2. Board review would provide clarity for numerous implementers, making institution a highly efficient use of Board resources.

IV. THE EXAMINER ERRED IN ALLOWING THE '756 PATENT

Most of the Challenged Patents (including the '756 patent) issued through Track One prioritized examination with no substantive office actions, creating conditions ripe for error. EX1004, Sept. 4, 2024 Decision Granting Track One Request. This is particularly concerning given the technical complexity of the claimed wireless communications technology and the crowded field. Indeed, the Examiner overlooked or failed to raise relevant prior art, including Chincholi and Clegg, which Petitioners now demonstrate render all claims obvious. Pet., Ground 1.

The Examiner's errors during prosecution of the '756 patent may stem, in part, from moving too fast. The '756 patent was not filed until the Examiner had issued an NOA to eight of the eleven Challenged Patents. The Examiner issued a non-final rejection on September 26, 2024, rejecting claim 25 as being indefinite. EX1004, Sept. 26, 2024 Non-Final Rejection. Applicant amended claim 25 on October 11, 2024. EX1004, Oct. 11, 2024 Amendment. On the same day, Applicant also filed an

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

IDS, disclosing Clegg for the first time, but by then, eight of the eleven Challenged Patents had issued. EX1004, Oct. 11, 2024 IDS. The Examiner issued an NOA less than 20 days later. EX1004, Oct. 30, 2024 NOA. The '756 patent sailed through prosecution with minimal substantive examination, creating conditions ripe for the errors Petitioners now demonstrate.

As discussed above, Applicant's disclosure practices illustrate the prosecution errors plaguing this patent family. Applicant only disclosed Clegg on October 11, 2024 in IDSs for the '198, '756, and '564 patents. Yet all the other eight patents, including four related patents (that are now being challenged as obvious over Clegg) had already issued without Applicant disclosing or the Examiner considering the reference. Petitioners now demonstrates that the '756 patent and six other related patents are obvious over Clegg. Similarly, Applicant disclosed a related Chincholi reference (U.S. Pat. Pub. No. 2013/0201847) in an IDS during the '756 patent's prosecution (EX1004, Aug. 5, 2024 IDS), but the Examiner never discussed it or used it as the basis for any rejection. *Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13 at 5-6 (Director May 19, 2025) (precedential) (Examiner materially errs when failing to consider prior art teachings material to patentability).

Even if the Director finds that other factors may favor discretionary denial, "it is an appropriate use of Office resources to review the[se] potential error[s]." *Taiwan*

Semiconductor Mfg. Co. v. Marlin Semiconductor Ltd., IPR2025-00847 *et al*, Paper

11 (Director Sept. 3, 2025) (referral when the ITC hearing on the challenged patent is scheduled nine months before the projected final written decision due date). This remains true even if the Director finds the Examiner's errors are applicable to only some Challenged Patents, since instituting proceedings on the other patents will be an "efficient use of Board resources." *Emboddy*, IPR2025-00248, Paper 13 at 3.

V. ON BALANCE, THE *FINTIV* FACTORS WEIGH AGAINST DISCRETIONARY DENIAL

A proper analysis of the *Fintiv* factors supports denying the DD Request. Most notably, Petitioners have filed a broad stipulation that goes beyond addressing the Director's concerns with *Sotera* stipulations. Paper 8; *Motorola Sols. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3-4 (Director Mar. 28, 2025).

A. Factor 4: Petitioners' Stipulation Weighs Heavily Against Denial

Petitioners' stipulation outweighs every other *Fintiv* factor. Petitioners stipulate that, if this petition is instituted, they will not assert in the litigation invalidity grounds that include:

1. "any grounds of invalidity arising under U.S.C. § 102 or § 103 involving only patent or printed publication prior art that could have reasonably been raised before the Board with respect to [the '756 patent], including the same grounds in the Petition (Paper 1);
2. "any grounds of invalidity arising under U.S.C. § 102 or § 103 with respect to the '756 patent that include [Chincholi or Clegg];
3. "any grounds that the '756 [p]atent is directed to ineligible subject-matter

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

under U.S.C. § 101 that could have reasonably been raised before the Board with respect to the '756 patent"; or

4. "any grounds of invalidity under § 112 that could have reasonably been raised before the Board with respect to the '756 patent provided that for any term challenged under § 112 in this proceeding Patent Owner does not assert a different claim construction in the parallel litigation than what Patent Owner asserts in this proceeding.

Paper 7.¹

¹ On October 17, 2025, the United States Patent and Trademark Office issued a Notice of Proposed Rulemaking proposing that "*inter partes* review shall not be instituted or maintained unless each petitioner files a stipulation with the Board and any other tribunal where it is litigating, or later litigates regarding the challenged patent, stating that if a trial is instituted, the petitioner and any real party in interest or privy of the petitioner will not raise grounds of invalidity or unpatentability with respect to the challenged patent under 35 U.S.C. 102 or 103 in any other proceeding." 90 Fed. Reg. 48341, <https://www.govinfo.gov/content/pkg/FR-2025-10-17/pdf/2025-19580.pdf>. Notably, such regulations were not proposed for post-grant reviews, indicating that the Director is less concerned with parallel challenges when patents are challenged early via post-grant review proceedings. Regardless, in the event these proposed rule changes are revised to apply to PGR proceedings,

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

The four components together eliminate potential overlap between this PTAB proceeding and the District Court litigation. Clause 1 is a standard *Sotera* stipulation. Clause 2 goes significantly further. It removes the primary PGR references (Chincholi and Clegg) from **any** District Court invalidity grounds, ***including combinations with system art***. By removing these from all potential district court §§ 102 or 103 grounds—including combinations with system art—Clause 2 effectively eliminates the possibility of duplicative or conflicting adjudication related to prior art challenges. Clauses 3 and 4 extend this protection to the additional grounds available in PGR proceedings, including any § 101 subject-matter eligibility challenges that could have been raised before the Board and any § 112 challenges that could have been raised before the Board, provided Patent Owner maintains consistent claim constructions across both forums.

Patent Owner argues that Clause 1 leaves open the possibility that in district court Petitioners might assert combinations of *other* patents or printed publications with system art. DD Request, 11. But Petitioners' stipulation mitigates this risk far more than a typical *Sotera* stipulation. Moreover, Patent Owner points to no law,

Petitioners reserve the right to modify its stipulation to conform to the regulations as ultimately implemented.

rule, or decision that supports its position that discretionary denial is warranted on the mere basis that Petitioners may assert in district court system art references in combination with patents or printed publications that are *not* asserted in the PGR.

Patent Owner's citation to *Motorola*, IPR2024-01205, Paper 19, is inapposite. There, the Director expressly noted that petitioner's stipulation did not foreclose combinations of system art with the IPR references. *Id.* at 4. Here, Clause 2 directly addresses this concern. Further, *Motorola* does not hold that a stipulation is inadequate unless it forecloses all possible system art combinations. Rather, *Motorola* addressed the *overall* weighing of *Fintiv* factors: the Director acknowledged that a standard stipulation "may mitigate some concern of duplication," *id.* at 4, but concluded that the mitigation there did not outweigh other case-specific facts, including substantial investment in the district court proceeding and factors 1, 2, and 5. *Id.* at 4.

Patent Owner also argues there is overlap because Clegg issued to Netgear and Samsung cites a Netgear router as system prior art, but Patent Owner fails to identify any specific overlap between Clegg's teachings and the Netgear router that would create duplicative efforts. DD Request, 12.

Patent Owner next argues that Petitioners' stipulation does not make PGR a "true alternative" also because Clauses 3 and 4 create risk of inconsistent decisions because Samsung raises similar §§ 101 and 112 arguments in district court for non-

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

PGR patents. DD Request, 12-14. Patent Owner's argument misstates the law. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19 (P.T.A.B. Dec. 1, 2020) (stipulation makes IPR "true alternative" by "address[ing] concerns of duplicative efforts and potentially conflicting decisions in a much more substantial way"). This argument also conflates two distinct concepts: Clauses 3 and 4 eliminate duplicative adjudication of the '756 patent's validity (the concern animating *Fintiv*), while the fact that eight other related patents will be adjudicated in district court reflects the statutory limits of IPRs, not a failure of the stipulation. Patent Owner cites no authority requiring Petitioners to abandon legitimate district court challenges to non-PGR-eligible patents as a condition of instituting PGR, and such a requirement would improperly penalize Petitioners for filing the broader PGR review that Congress authorized. Further, instead of creating conflicts with the district court proceedings, PGRs will offer the possibility for guidance on the common § 101 and § 112 issues existing in this patent family.

Moreover, Petitioners' stipulation represents an efficient allocation of issues between the two tribunals. Because Petitioners are asserting eight parallel IPRs where system art cannot be raised, system art will be at issue in the district court with respect to the IPR patents. The PGR stipulation is designed to align with the IPR stipulations so that system art discovery and theories on all patents can proceed together before the district court. This allocation avoids duplicative proceedings on

system art while ensuring comprehensive review of all invalidity theories.

Accordingly, Factor 4 factor heavily weighs against denial.

B. Factor 1: The District Court's Likelihood to Grant a Stay If the PGR Is Instituted Is Neutral

Patent Owner attempts to predict how the District Court might rule on a potential post-institution stay motion. DD Request, 8-9. But the Board declines to engage in such speculation when the district court has not expressed any position on the matter, instead treating this factor as neutral. *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (P.T.A.B. May 13, 2020) (declining to “infer, based on actions taken in different cases with different facts, how the District Court would rule”).

Patent Owner concedes that the District Court would likely consider and potentially approve a stay if institution occurs across all eleven petitions. DD Request, 9 n.3; *see also Emerging Automotive LLC v. Kia Corp.*, No. 2:23-cv-00437-JRG, Dkt. 301 (E.D. Tex. Jun. 30, 2025) (granting stay following institution of IPRs and *ex parte* reexamination against all asserted patents). Indeed, the District Court has shown a recent willingness to grant stays even close to trial. *Id.* (approving stay three weeks pre-trial); *Stellar LLC v. Motorola Sol., Inc.*, No. 4:23-cv-750-SDJ, Dkt. 156 (E.D. Tex. Feb. 24, 2025) (imposing stay two weeks before trial, even while awaiting institution decisions on some asserted patents).

A stay in this case may be particularly attractive to the District Court given

the high degree of overlap in prior art theories across the eleven petitions, and the fact that Petitioners are asserting PGRs which offer the possibility for guidance on the common § 101 and § 112 issues existing in this patent family.

C. Factor 2: The Proximity of the District Court Trial and The Board's Final Written Decision Is Neutral

While Patent Owner emphasizes the scheduled October 19, 2026 trial date, this date is not guaranteed given Judge Gilstrap's busy trial docket (there are *six* trials (four of them patent) and one pretrial conference currently scheduled for that same day). EX1023. Additionally, the Eastern District of Texas's actual time-to-trial statistics show that the most recent median time-to-trial for the district court is 25.1 months. EX1024. Applying those statistics would place trial at around the same time as the Board's latest statutory deadline for a final written decision.

Even if the scheduled trial date is accepted, the Director has referred petitions to the Board despite comparable timing concerns, particularly where other factors—like lack of settled expectations—weigh against denial. *See Zhuhai CosMX Battery Co. v. Ningde Amperex Tech. Ltd.*, IPR2025-00385, Paper 9 at 2-3 (P.T.A.B. July 2, 2025) (lack of settled expectations justified referral to the Board despite trial scheduled to occur before FWD).

And the cases Patent Owner cites are distinguishable. In *Cisco Sys. Inc. v. WSOU Invs. LLC*, IPR2025-00429, Paper 15 (P.T.A.B. June 25, 2025), the projected

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

final written decision was July 30, 2026, but the district court's scheduled trial date was April 20, 2026 (resulting in a gap 50% larger than here). *Id.* at 2. In *Full-Metal-Power B.V. v. Infocus Downhole Sols. USA LLC*, IPR2025-00391, Paper 14 (P.T.A.B. June 25, 2025), the Board denied institution where the jury trial was scheduled to begin a month before the projected due date of the final written decision, but this was just one factor in a “holistic assessment” of a situation markedly different from the one at issue here: for example, there, petitioner failed to offer any prior art stipulation. *Id.* at 2.

Patent Owner accuses Petitioners of “delay” in filing its petitions. DD Request, 6-8. To the contrary, Petitioners acted with diligence. Two of the eleven challenged patents—the '198 patent (challenged in PGR2025-00067) and the '564 patent (challenged in PGR2025-00069)—did not even issue until January 7, 2025 and March 11, 2025, respectively. Patent Owner added them on March 11, 2025 in an Amended Complaint. EX2003. Petitioners then had to assess the newly added patents. That Petitioners filed eleven petitions challenging over 300 claims only about three to four months after the Amended Complaint is evidence of diligence, not lack thereof. The timeline reflects appropriate care in identifying the strongest prior art references and developing comprehensive positions across the family. *Tianma Microelectronics Co. Ltd. v. Japan Display Inc.*, IPR2021-01057, Paper 15 at 9-11 (P.T.A.B. Jan. 6, 2022) (finding diligence in filing petition nine months after

complaint and six months after infringement contentions).

D. Factor 3: The Parties' Limited Investment in the District Court Litigation Weighs Against Discretionary Denial

This factor weighs against discretionary denial. At the time of the Board's institution decision, the District Court case will still be in its early stages with limited investment by the Court and parties.

While Patent Owner emphasizes that the parties have exchanged contentions (DD Request, 7), the litigation is in its infancy. Trial is not scheduled until October 19, 2026, at the earliest. Fact discovery is only recently underway and will not close until May 2026. Expert discovery will not close until late June 2026 (and Patent Owner will not need to serve an expert response to Petitioners' invalidity contentions until after the institution decision date, meaning Patent Owner will then benefit from Petitioners' broad stipulation). Claim construction proceedings have not even begun, the claim construction hearing is about six months away (about three months *after* the institution decision date), and dispositive motions are not due another two months after that. EX2002 at 4; *see Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 10 (P.T.A.B. Mar. 20, 2020) ("If, at the time of the institution decision, the district court has not issued orders related to the patent at issue in the petition, this fact weighs against exercising discretion to deny institution . . ."); *Coretronic Corp. v. Maxell Ltd.*, IPR2025-00941, Paper 9 (Sept. 26, 2025) (finding meaningful

investment where “the parties have participated in a *Markman* hearing, fact discovery was scheduled to close on August 21, 2025, and expert discovery will close soon.”). This schedule weighs heavily against discretionary denial.

Patent Owner claims Petitioners chose to “actively” litigate by filing an Answer/Affirmative Defenses and Invalidity Contentions. DD Request, 2. This is meritless. Petitioners complied with deadlines for mandatory filings. Pre-institution stays are exceedingly rare in this District Court, and the standard practice is to seek a stay only after institution. *See, e.g., Advanced Integrated Circ. Process LLC v. Taiwan Semiconductor Mfg. Co.*, 2-25-cv-00324-JRG, Dkt. 71 at 2 (E.D. Tex. Aug. 29, 2025) (“withhold[ing] a [stay] ruling pending action on the petition by the PTAB”). Petitioners have not made the substantive investment *Fintiv* contemplates. They have not litigated claim construction or even any discovery disputes, and the court has issued no substantive orders on the patents.

In sum, neither party has made substantial investment in the District Court.

E. Factor 5: Petitioners Being the District Court Defendants Does Not Outweigh the Factors Weighing Against Discretionary Denial

The Petitioners here are the defendants in the District Court case. This factor does not outweigh the other factors discussed above.

VI. THE MERITS OF THE PETITION ARE STRONG

Patent Owner does not dispute the merits of the Petition—not even in its *Fintiv*

Factor 6 analysis. DD Request (Section III.E). Patent Owner's DD Request instead focuses on procedural criticisms about expert testimony and alleged "gap-filling." This silence on the substantive merits weighs heavily in favor of institution.

The Petition's merits are strong. The Petitions use specific, pinpoint citations to show that the prior art references—Chincholi and Clegg—disclose every disputed element and explain that the combination rationale flows directly from the references' overlapping objectives (increasing throughput and efficiency in multi-transceiver wireless networks) and from Chincholi's existing architecture, which a POSITA would naturally be motivated to incorporate Clegg's techniques for mitigating interference within a given channel.

Patent Owner's contrary characterization misstates how expert testimony properly functions under Board rules. Patent Owner argues that the Petition seeks to "fill gaps" with expert testimony, suggests over-reliance, labels portions "conclusory," and complains that the expert references background materials not listed as prior-art grounds. That framing misstates the record and the misapplies the rules. The Petition uses the expert to articulate why a POSITA would read the references the way the Petition does and why a POSITA would combine them. *See, e.g.,* EX1002, ¶¶ 76-202.

But the substantive question is not, *e.g.*, the degree of textual overlap between a declaration and a petition, but is whether Chincholi and Clegg teach what the

Petition says they teach. The Petition and the declaration both cite to the same specific disclosures in Chincholi and Clegg, and thus exhibit textual overlap. Nor does textual coordination between legal argument and expert analysis establish that there is anything improper about the Petition or the expert declaration. Here, the Petition makes proper use of expert testimony and does not rely on the expert to supply missing elements. 37 C.F.R. § 42.65(a); *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (Aug. 24, 2022) (precedential).

A. Patent Owner's "Gap-Filling" Criticisms

Patent Owner identifies one alleged "gap-filling" example. Patent Owner claims Chincholi does not disclose a "virtual MAC interface" because it does not use the word "virtual." DD Request, 17. This criticism fails because Chincholi expressly discloses this claimed function, albeit not using the precise word chosen by Patent Owner. Dr. Almeroth merely explains why a POSITA would recognize this disclosure as teaching the challenged limitation.

Chincholi discloses the architecture and functionality the claims recite as a "virtual MAC interface." As discussed in the Petition, Chincholi discloses an "Opportunistic Multiple-Medium Access Control (MAC) Aggregation (OMMA) layer," a "single thin software layer" positioned above multiple actual MAC/PHY stacks that "distributes and/or combines" packets between the IP layer and the underlying transceivers. Pet., 8, 23; EX1005 at [0003], [0120], [0192]. Chincholi

also discloses the specific functional components the '756 patent associates with the “virtual MAC interface”: an IP QoS Scheduler, a MAC Resource Reservation Module, and a Traffic Shaping Module. Pet., 24-26; EX1005 at [0139], [0142]-[0143].

Dr. Almeroth explains why a POSITA would understand these components as corresponding to the claimed virtualization function. EX1002, ¶¶ 98-100. That is proper expert testimony—explaining why disclosed functionality meets claimed functionality—not gap-filling. The absence of the word “virtual” is immaterial when the reference discloses the underlying function.

B. The Chincholi/Clegg Combination Is Motivated by the References and Predictable to Implement

Patent Owner contends there is no proper motivation to combine Chincholi and Clegg, arguing that background materials (*e.g.*, U.S. Pat. Appl. No. 2009/0141691 (“Jain”)) improperly supply the “multiple resource monitoring interfaces” idea. DD Request, 18.

This criticism fails because both the motivation and the idea come directly from the references. Chincholi discloses a “OMMA Controller,” which comprises “a Feedback Device Classifier module 2930.” EX1005 at [0205]. And the expert explained that the Feedback Device Classifier module 2930 “is a ‘resource monitoring interface’ for collecting and analyzing this feedback information.”

EX1002 at ¶ 121. The expert then explained why “a POSITA would have been motivated to implement virtualized physical interfaces, each capable of collecting and consolidating the feedback metrics for its respective grouping of similarly configured RATs.” *Id.* at 39. The background material (*i.e.*, Jain) simply contextualizes why such an implementation would be “particularly beneficial.” *Id.* at 39-40.

C. The Petition's Implementation Analysis Is Grounded in References

Patent Owner criticizes Dr. Almeroth for providing “little discussion as to how a POSITA would implement the elements missing from Chincholi from supplemental reference Clegg into that architecture” and for using a “conclusory statement” like “easily implemented.” DD Request, 18. As explained in Section VI.B above, there are no missing elements—both the motivation and implementation details come directly from the references.

Further, the expert explained that Chincholi already teaches the dynamic allocation of contiguous and non-contiguous channels, and Clegg supplements this by providing additional techniques for mitigating interference within a given channel. EX1002, ¶ 78. And because the teachings of Clegg are “complementary to Chincholi,” integrating Clegg’s techniques into the Chincholi system could “easily implemented.” *Id.*

VII. CONCLUSION

Patent Owner has identified no legitimate basis for the Director to deny institution based on any discretionary factors. Institution should be granted.

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

DATED: November 3, 2025

Respectfully submitted,

By /s/ James Glass
James M. Glass (Reg. No. 46,729)
QUINN EMANUEL URQUHART &
SULLIVAN, LLP
295 5th Avenue, 9th Floor
New York, NY 10016
Tel: (212) 849-7000
jimglass@quinnemanuel.com

*Attorney for Petitioners Samsung
Electronics Co., Ltd., and Samsung
Electronics America, Inc.*

Petitioners' Opposition To Patent Owner's
Request For Discretionary Denial Of Institution
U.S. Patent No. 12,169,756

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, I hereby certify that on November 1, 2025 the foregoing document was served via email on the following counsel of record:

CMorton@RobinsKaplan.com

JGutierrez@RobinsKaplan.com

AFahrenkrog@RobinsKaplan.com

RKXiFi@RobinsKaplan.com

DATED: November 3, 2025

Respectfully submitted,

By /s/ James Glass
James M. Glass (Reg. No. 46,729)
QUINN EMANUEL URQUHART &
SULLIVAN, LLP
295 Fifth Avenue, 9th Floor
New York, NY 10016
Tel: (212) 849-7000
jimglass@quinnemanuel.com