

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner

v.

ADVANCED CODING TECHNOLOGIES LLC,
Patent Owner

Case IPR2025-01221
Patent 7,804,891

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

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I. INTRODUCTION

Petitioner Apple Inc. (“Apple”) opposes Patent Owner Advanced Coding Technologies LLC’s (hereinafter, “ACT” or “Patent Owner”) Request for Discretionary Denial of Institution (Paper 7, “Request”). ACT’s Request focuses largely on just two discretionary issues: (a) *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB March 20, 2020) (precedential) (“*Fintiv*”), and (b) settled expectations. Indeed, 8 of 9 pages of the Request advocate under *Fintiv* for denial based on co-pending litigation filed in the Eastern District of Texas (EDTx). However, since filing its Request, ACT voluntarily dismissed the very co-pending EDTx litigation upon which its *Fintiv* arguments were based, rendering nearly all of the arguments presented in the Request moot. EX1076; *see* Paper 7, 1-8. While ACT filed a new complaint in the Western District of Texas—just one day before the due date of this Opposition, no *Fintiv* factor favors discretionary denial in view of the new co-pending litigation, where ACT has not yet even completed service of the complaint and no scheduling order has been issued as of the time of filing this Opposition.

Indeed, under all relevant considerations, denial of institution is unwarranted and inappropriate. This conclusion is reinforced by factors that ACT failed to address, which further demonstrate why *inter partes* review would constitute an efficient and otherwise appropriate use of Office resources. The ’891 Patent issued

in error based on oversight of relevant prior art teachings that were properly recognized by the examiner of a counterpart Japanese application. The '891 Patent was also only acquired by ACT in 2022 as part of a portfolio that it immediately began asserting against the industry. ACT has asserted six of these patents against Apple, which Apple has timely challenged through IPR despite their wide birth of diverse technologies ranging from media servers to video compression and voice coding . The PTAB is uniquely positioned to efficiently address Apple's challenges to such diverse technologies, which will require the trier-of-fact to make detailed factual findings with implications not just for Apple, but a majority of the U.S. consumer electronics market.

More, the Examiner committed material error in allowing the '891 Patent despite apparent consideration of Yamane (EX1004), which explicitly teaches the features identified by the Examiner as missing, and thus, responsible for allowance. *Taiwan Semiconductor Mf'g Co. Ltd. v. Marlin Semiconductor Ltd.*, IPR2025-00847, Paper 11, at 2-3 (Sept 3., 2025) (“[T]he patent examiner overlooked certain teachings in [the cited prior art] that appear to disclose the claimed features that the patent examiner indicated were not taught by the prior art of record ... Petitioner appears to show a material error by the Office, and it is an appropriate use of Office resources to review the potential error.”); *Samsung Elecs. Co., Ltd. v. Wilus Institute of Standards and Tech. Inc.*, IPR2025-00935, Paper

12, at 2-3 (Sept. 26, 2025) (“Petitioner persuasively argues that the patent examiner overlooked certain teachings ...”).

More specifically, in the first and only Office Action issued during original examination, the Examiner designated several dependent claims as “allowable” without ever issuing a prior art rejection of them. EX1002, 201. Those allowed claims included a dependent claim that recited “a data changing means” that “mak[es] a predetermined change to the data to be transmitted” if the communication quality does not satisfy a predetermined condition. EX1002, 58, 201. Responding to the Examiner’s indication of allowability, applicant amended this limitation into the independent claims to secure allowance. EX1002, 212-220, 224-227. But the Examiner committed material error in allowing on this basis. Yamane—which had been cited to the Examiner and which Apple also cites as the primary reference in the Petition’s prior art grounds—expressly discloses this and other features that the Examiner erroneously declared allowable in the first Office Action. Significantly, the Examiner’s assumption that Yamane lacked noted features is contradicted not only by the corroborated analysis of Apple’s independent technical expert (Mr. David Lett), but also by the findings of an examiner of the Japanese Patent Office (JPO), when examining a counterpart Japanese application that recited substantially the same claim features. *See* EX1074. Tellingly, the Japanese examiner cited disclosure within Yamane of a

particular species of the claimed “data changing” feature, and rather than contest this finding, the applicant instead elected to pursue amendments directed to different claim features to secure allowance of the Japanese application. Unlike his Japanese counterpart, the U.S. Examiner failed to appreciate the relevance of Yamane’s disclosure, and his failure to properly consider Yamane led to an underserving allowance of the patent that ACT now asserts against Apple and more widely against the industry.

As to settled expectations, ACT has none. ACT only purchased the ’891 Patent from JVC Kenwood in February 2022 along with a bundle of other patents. EX1057; *infra*, §IV.A. ACT immediately began its patent assault later that same year when it sued Samsung, LG, and ByteDance on multiple of the purchased patents. EX1063; EX1064; EX1065. But ACT only later asserted the ’891 Patent, early in August 2024, when it filed a district court action against Google. EX1073. Later that same month, ACT asserted the ’891 Patent against Apple. EX1014. By that time, however, as noted above, Samsung had filed numerous IPRs against ACT’s patents, which had instituted. *E.g.*, *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2023-00910 (instituted), IPR2024-00245 (instituted), IPR2024-00327 (instituted), IPR2024-00372 (instituted), IPR2024-00374 (instituted); *see also* EX1070. The validity of the ’891 claims was thus, at best, unsettled by the time ACT brought its suit against Apple.

Moreover, ACT's claims to settled expectations are undermined by its own attempt to weaponize the '891 Patent against 5G standards-based error detection and correction technologies allegedly implemented in Apple products, which are far different from the voice coding technologies at the heart of the '891 Patent's disclosure. *Infra*, §IV.B. The claim interpretations that ACT relies upon to stretch the bounds of the challenged claims are inconsistent with the specification of the '891 Patent and were unforeseeable. ACT's request for discretionary denial notably presents no evidence that the '891 Patent is essential to the accused 5G standard or that the '891 Patent was ever previously licensed or commercialized before ACT acquired the '891 Patent from JVC Kenwood in 2022 or first asserted against the '891 Patent in 2024. There is no evidence that any entity ever sought to enforce the '891 Patent against non-vocoder technology or bring the '891 Patent to the attention of relevant standards-setting organizations or licensing pools before ACT's recent acquisition and assertion. Apple should not be denied therefore the opportunity to bring a meritorious IPR challenge in these circumstances, especially where the '891 Patent never should have issued in the first place.

The existence of material error, the strength of the grounds, and the settled expectations of the parties thus all support referral of the '891 Patent Petition. And, significantly, the absence of any *Fintiv* concerns—in light of ACT's

voluntary dismissal of its original co-pending litigation and its new, day-old co-pending litigation—further supports referral.

In short, ACT's voluntary dismissal of its original co-pending litigation have rendered any *Fintiv* concern moot. Moreover, the nature and complexity of the parties' dispute is the exact kind that the IPR process was meant to address—a frivolous litigation brought by an assertion entity that played no part in the creation of the patents-in-suit, against an American innovator and economic driving force. Considering the significant material error made during prosecution and ACT's lack of settled expectations, the PTAB, through IPR, is best equipped to resolve the patentability issues raised in the Petition. For each of these reasons, and for those discussed in further detail below, Apple respectfully requests that the '891 Patent Petition be referred to a merits panel.

II. ACT HAS NOT JUSTIFIED APPLICATION OF DISCRETION TO DENY BASED ON *FINTIV*, NOR CAN IT

ACT's *Fintiv* denial arguments are no longer applicable because the referenced litigation was transferred and then voluntarily dismissed by ACT. EX1076,

1. And, denial under *Fintiv* is not justified based on ACT's new litigation – filed just one day before this Opposition – because the trial in that litigation is neither scheduled nor reasonably expected prior to FWD. EX1076; EX1068, 37.

A. ACT's *Fintiv* Arguments are Rendered Moot by its Dismissal of the Relied-Upon co-Pending EDTx Litigation

ACT's Request for discretionary denial focuses in principal part on just one argument: that "[t]he circumstances of the parallel District Court Litigation, *Advanced Coding Techs. LLC v. Apple Inc.*, Case No. 2:24-cv-00572-JRG (E.D. Tex.), necessitate denial of the Petition under the Board's precedent." Paper 7, 2. Indeed, nearly eight of the nine total pages in ACT's short discretionary denial Request are directed to this one argument alone.¹ *Id.* Significantly, however, the requested basis for discretionary denial is no longer applicable because ACT has ***voluntarily dismissed*** the underlying litigation referenced in its own Request. As noted above, the Eastern District of Texas court transferred the litigation to the Northern District of Texas on September 29, 2025, and just two days later (one day before the due date for this Opposition), ACT filed a notice voluntarily dismissing the NDTx litigation. EX1076, EX1078. With the referenced litigation no longer pending, none of ACT's proffered justifications for discretionary denial under § 314(a) remain. The trial in EDTx is no longer scheduled (nor was one ever scheduled in NDTx), the parties and the court will make no further investment in this litigation, and there will be no adjudication of validity of the challenged claims of the '891 Patent in the litigation underlying ACT's discretionary denial

¹ ACT also dedicates less than a page to settled expectations. Paper 7, 8-9.

argument. In short, no basis remains to deny Apple’s petition under *Fintiv* based on the arguments raised in ACT’s brief. ACT should have been aware that this would be the result, but it elected to pursue voluntarily dismissal of the litigation anyway. Accordingly, denial based on the *Fintiv* argument raised in ACT’s Request is unwarranted.

B. Discretionary Denial is Not Warranted Under *Fintiv*

On the same day that ACT voluntarily dismissed the NDTx litigation—again, just one day before the due date of this Opposition—ACT filed a new complaint against Apple in the Western District of Texas. EX1077. ACT has never addressed *Fintiv* in the context of the new WDTx action. Nonetheless, Apple addresses these factors below. As shown, **not one *Fintiv* factor favors discretionary denial.**

1. Factor 1: No Stay Has Been Granted (Neutral)

Fintiv Factor 1 looks to “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” Here, this factor is at worst neutral given that the co-pending litigation was filed just one day before the filing of this Opposition, ***affording Apple no possible opportunity to request a stay by the due date of this Opposition.***

2. Factor 2: The Co-Pending District Court Proceeding is in its Infancy (Strongly Favors Referral)

Fintiv Factor 2 looks to “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision” as part of a holistic evaluation of fairness and efficiency, which includes considering which forum will assess the patentability of the challenged claims. *See Fintiv*, IPR2020-00019, Paper 11, 5-6; *see also id.*, Paper 15, 7-17 (PTAB May 13, 2020) (informative) (explaining that, in evaluating the *Fintiv* factors, the Board “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review”); *Illumina, Inc. v. Natera, Inc.*, IPR2019-01201, Paper 19, 6 (PTAB December 18, 2019) (“We have considered the positions of the parties and find that, on this record, considerations of efficiency, fairness, and the merits of the grounds in the Petition do not weigh in favor of denying the Petition.”). Given that the co-pending litigation was filed in the Western District of Texas just one day ago (over three months *after* the IPR Petition), factor 2 strongly weighs against discretionary denial.

Here, the co-pending litigation has not yet been assigned a trial date, and ACT has not yet even completed service of its complaint as of the filing of this Opposition. Indeed, the district court only just assigned a judge to the new litigation on the morning that Apple’s Opposition was due. EX1079. Moreover,

the median time-to-trial for civil cases in the Western District of Texas is 32.8 months according to current statistics, which would *project trial to begin in late June 2028, a year and a half after the Board's expected deadline* (December 2026) to issue a Final Written Decision. EX1068, 37.

3. Factor 3: Few, If Any, Resources Would Have Been Expended by the Time of the Decision on Institution (Strongly Favors Referral)

Fintiv factor 3—which considers the “amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision”—also favors strongly institution.

As with factor 2, because the complaint for *the co-pending litigation was just filed yesterday*, little, if any, resources will have been expended by the time of the Board's Institution Decision. Indeed, ACT had not yet even completed service of the WDTX complaint as of the time Apple filed this Opposition and no schedule has been issued for the co-pending litigation.

4. Factor 4: Uncertainty Regarding Overlap Between This IPR and the District Court Proceeding (Neutral)

Fintiv factor 4—which considers overlap between issues raised in the Petition and in the parallel proceeding—is at worst neutral. Given the infancy of the co-pending litigation, ACT has identified just a single claim that Apple allegedly infringes. EX1077, 75. Given the lack of further identification of

asserted claims, any overlap between this IPR and the co-pending district court proceeding is speculative at best.

5. *Factor 5: The Same Parties are in the Co-Pending Litigation (Neutral)*

Fintiv Factor 5—The parties in this IPR are also parties in the co-pending Texas litigation. This factor is neutral.

6. *Factor 6: ACT's Identified "Other Circumstances" Lack Merit and Do Not Weigh in Favor of Discretionary Denial (Favors Referral)*

As mentioned above, ACT's Request does not address the merits of the Petition. Nor can they. The Petition presents a compelling case for unpatentability, including grounds that apply prior art that the Examiner previously endorsed but overlooked at allowance, thus committing material error. The merits of the Petition are strong and well-supported by competent expert testimony and contemporaneous documentary evidence, including patents, printed publications, and specifications that corroborate the obviousness of the claimed subject matter. Not only Apple, but the public broadly, shares an interest in ensuring that all claims of the '891 Patent receive proper scrutiny from the PTAB—particularly as ACT continues to mount an aggressive litigation campaign against multiple defendants through several lawsuits in the time since buying the patents in 2022. EX1070.

III. *INTER PARTES* REVIEW IS AN APPROPRIATE USE OF OFFICE RESOURCES

A. Material Error by the Office Warrants Referral

Material error during examination weighs heavily against discretionary denial. Where, as here, the Office has committed material error in original examination of a challenged patent, correction of such an error has been deemed to be of paramount importance, often overcoming a Patent Owner's strong settled expectations in a challenged patent and even overcoming facts that otherwise would have resulted in a *Fintiv* denial. *See, e.g., Microsoft Corp. v. Partec Cluster Competence Cent. GmbH*, IPR2025-00318, Paper 9 at 3 ("*Microsoft v. Partec*") (June 12, 2025); *Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464, Paper 12 at 3 (July 16, 2025); *Tesla, Inc. v. Charge Fusion Techs., LLC*, IPR2025-00152, Paper 11 at 2 (June 12, 2025); *Anthony Inc. v. ControlTec, Inc.*, IPR2025-00636, Paper 9 at 2 (July 16, 2025); *USAA Federal Savings Bank v. PACid Technologies, LLC*, IPR2025-00697, Paper 9 at 2-3 (August 14, 2025); *Taiwan Semiconductor*, IPR2025-00847, Paper 11, at 2-3; *Wilus*, IPR2025-00935, Paper 12, at 2-3 (Sept. 26, 2025).

Here, the challenged claims of the '891 Patent received little scrutiny during an original examination that was infected with error that ultimately led to an undeserving allowance. As further described below, the Examiner overlooked that

Yamane (EX1004)—a Japanese prior art patent publication that had been cited during prosecution and that Apple now advances as the primary reference in Grounds 1A-1C of the Petition—expressly teaches the exact limitation that the Examiner wrongly assumed was missing from the prior art of record and that formed the basis for allowance of the challenged claims.

The Examiner's error in overlooking Yamane's highly relevant disclosure is evidenced by the file history of a counterpart Japanese application. *See* EX1074. In that case, the examiner in Japan had properly applied Yamane to reject the same claim feature that the Examiner in the U.S. had deemed allowable. Notably, the applicant had even cited the Japanese office action to the Examiner during prosecution of the U.S. application, but inexplicably, the Examiner failed to timely consider the Japanese office action until *after* the claims at issue had already been allowed. EX1002, 204, 231. But the Examiner's eventual consideration of the Japanese office action was too late and ultimately deficient. Indeed, despite belatedly initialing the Japanese office action, the Examiner failed thereafter to withdraw the allowance or to offer any explanation in the record for reaching a different result than the Japanese examiner. Compelling evidence in this proceeding demonstrates that the findings in the Japanese application were sound, and significantly, the applicant never disputed these findings during prosecution of the Japanese application. For each of these reasons and those described further

below, the errors committed during examination of the '891 Patent warrant referral of Apple's petition for consideration on the merits.

1. The U.S. Examiner Overlooked Prior Art Disclosure in Yamane of the Claim Feature that Formed the Basis for Allowance

The Examiner issued just a single Office Action during examination of the '891 Patent. EX1002, 192-204. That Office Action rejected application claims 1, 9, and 10 as obvious over several prior art references, but dependent claims 2-8 were deemed allowable, despite never having been rejected. *Id.*, 201. Allowed claim 2 depended from independent claim 1 and added a requirement for “a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making, a predetermined change to the data to be transmitted represented by the symbol used in the judgment.” *Id.*, 40-41.

The applicant responded to the Office Action by incorporating the features from claim 2 into the independent claims. EX1002, 212-220. The amendment to claim 1 is representative:

1. (Currently Amended) A communication quality judging device comprising:

a symbol judging means for obtaining a baseband signal representative of a sequence of multilevel symbols and judging the symbol represented by the baseband signal; [[and]]

a communication quality judging means for judging communication quality of a transmission channel over which the baseband signal has been transmitted, based on content of the symbol judged by the symbol judging means; means; and

a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment,

Feature from
allowed
dependent
claim 2

wherein at least a portion of a bit string is distinguished as a protected portion, the bit string constituting data to be transmitted represented by the sequence of symbols, and at least a portion of the symbol that belongs to the sequence of symbols contains a bit belonging to the protected portion and a redundant bit having a predetermined value, and

wherein the communication quality judging means identifies the number of redundant bits having the predetermined value or the number of redundant bits missing the predetermined value among the redundant bits contained in the symbol that contains a bit belonging to the protected portion, and judges the communication quality of the transmission channel based on the identified result.

EX1002, 214; *see also id.*, 219 (“[I]ndependent claim 1 has been amended to include the allowable features of dependent claim 2, and independent claims 9 and 10 have been amended to include features similar to those previously recited in dependent claim 2. Therefore, independent claims 1, 9 and 10, as amended, recite allowable subject matter[] ...”). Following the applicant’s amendment, the Examiner issued a notice of allowance of the application for the ’891 Patent. EX1002, 224-227. These prosecution events reflect that the limitation for the “data changing means” recited in claim 1 (and similar limitations in claims 9 and 10) formed the basis for allowance of the application.

The Examiner's decision to allow the application based on the "data changing means" limitation, however, was in error because the Examiner overlooked that this limitation was explicitly taught by the prior art of record. This was specifically disclosed in Yamane, one of few prior art references cited in an information disclosure statement before the Examiner issued the Office Action that identified dependent claim 2 as allowable. EX1002, 167-169, 180-185. Yamane's plain disclosure prompted Apple's reliance on Yamane to address this limitation in Grounds 1A-1C of the Petition. Pet., 41-45. Mr. David Lett, an expert in the field of the '891 Patent, endorsed the Petition's explanation of how Yamane's "information signal rejection" technique involves "a predetermined change to the data transmitted over the transmission channel much like the '891 Patent makes a predetermined change by destroying or unmuting voices represented by vocoder output data." EX1003, ¶67; Pet., 42; EX1004, [0016], [0018], Table 1; *see also* Pet., 42-43 ("Yamane's requirement for detecting three or more errors in the received known bit sequence A represents a predetermined condition for performing signal rejection. When this predetermined condition is satisfied—i.e., when three or more error bits are detected from the received known bit sequence—the receiver makes the predetermined change by rejecting information signals B."). The Petition's detailed analysis confirms that Yamane discloses and renders obvious the claimed techniques for making a predetermined change to the data. *Id.*

Finally, the Examiner's review of Yamane was likely incomplete since the applicant only submitted an English language *abstract* rather than a full English translation of the entire reference. *See* EX1002, 169 (information disclosure statement indicating limited submission of Yamane's "Abst."), 180 (abstract of Yamane's disclosure). As discussed in the next section, events that unfolded in Japanese prosecution should have prompted the Examiner to investigate Yamane more thoroughly, but there is no indication that the Examiner took the necessary steps to ensure proper consideration of Yamane's teachings.

2. *The Japanese Examiner Did Not Overlook Yamane, but Instead Applied Yamane to Properly Reject Claims Reciting the Same Feature that the U.S. Examiner Erroneously Deemed Missing from the Prior Art*

The Examiner's error in overlooking Yamane's teachings is further evidenced by the file history of Japanese Patent Application No. 2004-108399, a family counterpart of the '891 Patent. Similar to U.S. prosecution, the Japanese examiner issued just a single office action before allowing the counterpart application. *See* EX1074.² But unlike U.S. prosecution, the Japanese examiner did not find the

² Exhibit 1074 is a Japanese to English machine translation of relevant excerpts from the file history of the Japanese counterpart application. *See* EX1074. Pages 1-4 are a translation of the original claims of the Japanese application; pages 5-7 are

“data changing means” limitation of original claim 2 allowable. The Japanese examiner instead correctly recognized that Yamane discloses this feature and *even cited Yamane in rejecting claim 2 and related dependent claim 4 as lacking inventive step.*³ EX1074, 6. Claims 2 and 4 of the Japanese application recited language substantially similar to allowed claims 2 and 4 of the U.S. application:

U.S. Application Claim Language	JP Application Claim Language (Machine Translation)
2. The communication quality judging device according to claim 1, further comprising a data changing means for, if the communication quality judged by the communication quality judging means does not satisfy a predetermined condition, making a predetermined change to the data to be transmitted represented by the symbol used in the judgment.	2. The communication quality determination device according to claim 1, further comprising a data change unit configured to, when the communication quality determined by the communication quality determination unit does not satisfy a predetermined condition, make a predetermined change to data to be transmitted represented by a symbol used for the determination.

a translation of the rejection of the original claims from the Japanese office action; pages 8-13 are a translation of the applicant’s remarks in response to the office action; pages 14-23 are a translation of the claim and specification amendments submitted with the response to the office action; and pages 24-25 are a translation of the decision to grant the counterpart Japanese patent. *See* EX1074.

³ Claim 4 recited a species of the data-change feature recited in claim 2 of both the U.S. and Japanese applications.

4. The communication quality judging device according to claim 2 or 3, wherein the predetermined change includes a process of substantially destroying the data to be transmitted represented by the symbol used to judge that the communication quality does not satisfy a predetermined condition.	4. The communication quality determination device according to claim 2 or 3, wherein the predetermined change includes a process of substantially discarding data to be transmitted represented by a symbol used for determining that the communication quality does not satisfy the predetermined condition.
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EX1074, 1-2; EX1002, 40-41.

In more detail, the Japanese examiner relied on three “cited documents” in finding that claims 1-4, 9, and 10 of the Japanese application lacked inventive step, but specifically focused on Yamane (Cited Document 2) as disclosing steps for making a predetermined change to the data by substantially discarding the data as recited in claim 4:

Claims 1 to 4,9,10
Cited Document 1-3
In particular, abstract and paragraph [0006] of Cited Document 1, [0007], [0023]-[0026] Paragraph describes that (in order to improve the reception characteristics when the call signal traffic is small) a redundant bit ("0") having a predetermined value is added to the information bit (protected portion), and communication using symbols at a distance is performed. In the field of communication technology, it is a well-known matter to want to grasp the communication quality and reception quality of a transmission line, and on the other hand, a technique for measuring the above-mentioned quality by using known information having a predetermined value in a frame is also a well-known technique (see, for example, Cited Document 2 (furthermore, Table 1 and its explanation also describe that a transmission unit including known information is substantially discarded according to the obtained quality) and Cited Document 3 (in particular, Claim 1)), and therefore, it is deemed that a person skilled in the art could have easily conceived of obtaining the communication quality of the transmission line by using redundant bits which are known information in the invention described in Cited Document 1.

EX1074, 6; *see also* Pet., 52 (Apple’s Petition also citing Yamane for claim 4 features (issued claim 3)).

The Japanese examiner’s reliance on Yamane as disclosing the additional features recited in dependent claims 2 and 4 provides yet further confirmation that the Examiner of the application for the ’891 Patent erred in finding that the prior art of record including Yamane failed to disclose the recited “data changing means” that “if the communication quality...does not satisfy a predetermined condition” makes “a predetermined change to the data.”

The applicant’s response to the Japanese office action is also informative, particularly as the applicant never challenged the Japanese examiner’s mapping of Yamane to the data changing features of claim 2. *See* EX1074, 8-13. The applicant instead amended the independent Japanese claims to incorporate different or more narrow claim features to bring the Japanese application to allowance. *Id.*; *see also id.*, 14-17. For example, the applicant amended claim 1 to more specifically recite that “the predetermined change includes a process of replacing the data to be transmitted represented by the symbol used for the determination that the communication quality does not satisfy the predetermined condition with past data represented by a symbol acquired in the past by the symbol determination unit.” *Id.*, 9, 15. The applicant likewise argued that claim 7 was allowable based on its recita-

tion of different features not recited in claims 1 or 2 of the application (i.e., features beyond merely making a “predetermined change” to the data). *Id.*, 11-12. Although the applicant was free to pursue the broader coverage offered by claim 2 in the Japanese application, the applicant’s decision to waive that opportunity and instead accept narrower claims in Japan underscores the Examiner’s error in allowing the U.S. application based merely on the data changing features from claim 2.

3. *The U.S. Examiner Overlooked and then Failed to Recognize the Significance of the Cited Japanese Office Action*

The Examiner of the application for the ’891 Patent also should have been aware that the Japanese examiner had applied Yamane to support inventive step rejections of claims 2 and 4 of the Japanese application. In fact, the applicant not only cited Yamane, but also cited the Japanese office action in an information disclosure statement before any office action had issued in the U.S. EX1002, 167-169. Strangely, however, the Japanese office action never gained the Examiner’s consideration before claims 2 and 4 of the U.S. application were deemed allowable. This can be seen in the file history from the Examiner’s acknowledgment of the information disclosure statement that issued concurrently with the Office Action that identified claims 2 and 4 as allowable. EX1002, 204. Although the Examiner signed off on the English language abstracts of the three Japanese prior art references cited (including Yamane), the Examiner conspicuously failed to do the same

for the Japanese office action:

FOREIGN PATENT DOCUMENTS								
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
/BG/		JP	11-220762			08/10/1999		Abst.
/RG/		JP	05-260021			10/08/1993		Abst.
/BG/		JP	05-284147			10/29/1993		Abst.

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Official Action (Application No. JP 2004-108399) dated September 9, 2008.	Eng.

Examiner Signature	/Rahel Guarino/	Date Considered	3/11/2010
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner failed to add initials indicating consideration of the JP office action

EX1002, 204.

The applicant later called attention to the fact that the Japanese Office Action was not initialed in the IDS. EX1002, 218 (“it appears that the Examiner inadvertently overlooked the citation of the ‘Official Action (Application No. JP 2004-108399) dated September 9, 2008.’”). By that time, however, the Examiner had already erroneously identified claim 2 as allowable and the Examiner never corrected course. The Examiner instead proceeded with allowance of the application for the ’891 Patent following the applicant’s amendment, despite the Japanese examiner’s showing that Yamane discloses the features that were amended into the independent claims. EX1002, 224-227. More troubling, the Examiner offered no reasons for allowance and never acknowledged the substance of the Japanese ex-

aminer's rejections based on Yamane, let alone explained any reason for discarding the Japanese examiner's analysis.

In short, the challenged claims of the '891 Patent were not inventive. The fact that the Examiner failed to locate or appreciate *any* disclosures of the well-known features that formed the basis for allowance was a clear error that the Office, as the principal agency charged with ensuring patent quality, should correct through referral and institution of Apple's Petition. The evidence is overwhelming that the Examiner overlooked Yamane's disclosure of the claimed "data changing means," and the Examiner never should have allowed the '891 Patent. *Taiwan Semiconductor*, IPR2025-00847, Paper 11, at 2-3 ("[T]he patent examiner overlooked certain teachings in [the cited prior art] that appear to disclose the claimed features that the patent examiner indicated were not taught by the prior art of record ... Petitioner appears to show a material error by the Office, and it is an appropriate use of Office resources to review the potential error."); *Wilus*, IPR2025-00935, Paper 12, at 2-3 (Sept. 26, 2025) ("Petitioner persuasively argues that the patent examiner overlooked certain teachings ...").

B. The Complexity and Diverse Technology of the Asserted Patents Favors Institution

ACT's assertion of a "large number and vast scope of [] patents" directed toward "a diverse range of subject matter" in the parallel district court proceeding

is the precise situation for which “the Board is better suited to review” issues of validity, just as was the case in *Tesla*. IPR2025-00217, Paper 9, 2-3; *see also Apple Inc. v. Apex Beam Technologies LLC*, IPR2025-00896, Paper 10, 2-3 (September 3, 2025) (“*Apex Beam*”) (“The large number and wide scope of the patents asserted in the district court litigation weighs against discretionary denial, as the Board is better suited to review a large number of patents involving diverse subject matter.”); *Shenzhen Touzhu Tech. Co. Ltd. v. Stratasy*, IPR2025-00438, Paper 10, 3 (July 17, 2025) (“*Shenzhen*”) (“six families that involve a diverse range of subject matter ... weighs against discretionary denial”). Much like the multi-patent litigation at issue in *Tesla*, the ’891 Patent at issue here is part of “complex and diverse” multi-patent litigation spanning multiple patent families, over forty-five claims, and numerous distinct technologies involving several independent standards bodies.

The ’891 Patent challenged in this proceeding is but one of *six* patents that ACT has asserted against Apple. Against this backdrop, Apple has asked the PTAB to apply much-needed scrutiny to ACT’s patents by filing IPR petitions on each of the asserted patents. Apple’s pending petitions seek review of the *six* patents, which span a broad range of technologies and claim scope in the general areas of encoding and decoding information for storage and wireless communications, including claims directed to the following:

- adaptive bandwidth utilization enabling simultaneous real-time monitoring and retroactive high-quality video reconstruction (U.S. Patent No. 9,986,303, Abstract);
- super-resolution video decoding system enabling multiple quality outputs from hierarchically encoded streams (U.S. Patent No. 10,218,995);
- dual-pathway super-resolution video encoding system creating enhanced quality content from standard resolution inputs through parallel processing streams. (U.S. Patent No. 10,218,995 – second claim set);
- zone-border motion compensation using Poisson's Equation to eliminate block discontinuities in video prediction without smoothing filters (U.S. Patent No. 8,090,025);
- super-resolution video encoding system that creates high-resolution video content from standard-resolution input using dual enhancement pathways and predictive reference selection (U.S. Patent No. 9,042,448);
- seamless distributed media server with transparent content migration and unified content presentation across multiple storage devices (U.S. Patent No. 8,230,101); and
- real-time communication quality assessment through embedded redundant bit analysis with adaptive data masking and error mitigation. (U.S. Patent No. 7,804,891).

As illustrated by the patents above, ACT's asserted patents involved in the pending IPRs cover a broad array of subject matter including data rate determination, adaptable compression, and data reconstruction ('303 Patent); super-resolution data encoding and decoding using multiple encoders/decoders and resolution considerations ('995 and '448 Patents); channel quality estimation and data compensation ('891 Patent); motion estimation using Poisson's equation to approximate block boundary conditions ('025 Patent); and data transfer and storage that includes transfer decision making and searchability ('101 Patent). To account for the variety of technologies and claims at issue, Apple filed *seven* IPR petitions, totaling **22** grounds and **22** different prior-art references. The diverse subject matter involved strongly favors referral. *Tesla*, IPR2025-00217, Paper 9, 2-3; *Apex Beam*, IPR2025-00896, Paper 10, 2-3. As was the case in *Tesla*, *Shenzhen*, and *Apex Beam*, "the Board is better suited to review a large number of patents involving diverse subject matter." *Id.* While it would be difficult for a single trier-of-fact to adequately assess validity of all of the diverse claims at issue in these proceedings, the PTAB is well situated to do so competently and efficiently. Interests of efficiency, justice, and the promotion of a strong patent system favor continued PTAB review of ACT's patents, including referring the present Petition for adjudication on the merits.

C. Substantive *Inter Partes* Review, Available Only Upon Referral, Would Yield Significant Efficiencies

The PTAB is uniquely situated to provide efficient review of the '891 Patent given the complex validity issues not only at issue in this proceeding, but six others that implicate the other asserted patents. *Inter partes* review in this proceeding (and the six other proceedings) thereby serves the public interest by centrally settling patent validity, rather than forcing distinct validity challenges before the district court. This promotes the AIA's objectives of improving patent quality and reducing unwarranted litigation burdens on the public and industry participants. *See* 35 U.S.C. § 311; EX1066, pt. 1, at 48 (noting role of IPR in providing "a quick and cost effective alternative[] to litigation").

Such centralized review is crucial because ACT's track record demonstrates a propensity to assert the patents. ACT has already established a pattern of aggressive enforcement of the '891 Patent and many of its other patents. EX1070. The high likelihood of future assertions against entities supporting related technologies reinforces the importance of validity investigation of the '891 Patent and other patents. For example, in enforcing several of these patents, ACT simply accuses the practice of the AV1 standard or the 5G new radio standard, and it has already filed four distinct district court litigations against Apple, Samsung, LG, and Google. Further litigation is, therefore, likely, and addressing validity at the

PTAB would serve to resolve a key question that will otherwise need to be addressed multiple times over, in less efficient forums that do not bring the benefit of perspective from highly technical PTAB judges.

Finally, *inter partes* review of this proceeding is also supported by recent discretionary guidance regarding counterpart litigation that “would proceed to several district court trials in different jurisdictions.” *Berkshire Hathaway Energy Company, et al. v. BirchTech Corp.*, IPR2025-00274, Paper 23, 2-3 (July 2, 2025) (“*Berkshire*”). There, such litigation resulted in *inter partes* review being deemed to represent an efficient use of Office resources. *Id.* ACT’s serial litigation activity suggests that Apple will not be the last defendant accused of infringement. ACT’s assertion of six patents, therefore, both in the litigation and any future litigations is likely to span multiple district court trials across multiple jurisdictions. Under these circumstances, “resolving the dispute between the parties at the Office would be more efficient.” *Berkshire*, IPR2025-00274, Paper 23, 2.

**D. Additional Considerations Identified in the Interim Process
Memorandum Favor Referral**

A memorandum dated March 26, 2025 and titled “Interim Process for PTAB Workload Management” (“Interim Process Memorandum”) identified additional

considerations that may be evaluated when addressing discretionary issues.

EX1105. These considerations include:

1. The strength of the unpatentability challenge;
2. Settled expectations of the parties, such as the length of time the claims have been in force;
3. Compelling economic, public health, or national security interests;
4. Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;
5. Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;
6. The extent of the Petition's reliance on expert testimony; and
7. Any other considerations bearing on the Director's discretion.

ACT's briefing only addresses settled expectations (which Apple addresses in §IV), and does so in a cursory manner. *See* Paper 7, 8. As explained above, however, ACT does not enjoy strong settled expectations. Other compelling considerations, including Examiner error in issuing the '891 Patent offset ACT's claims to settled expectations. Further, as explained below, proper consideration of these factors confirms that discretionary denial is not warranted, and that conclusion is only reinforced by the other considerations recited in the Interim Process Memorandum that ACT omitted from its analysis.

1. Compelling Economic Interests Favor Referral

Institution and merits review of the '891 Patent (one of 6 patents asserted in co-pending litigation) would provide timely clarity on the scope and validity of rights purported to cover standard implementations of video coding technologies—clarity that would enable efficient planning and capital allocation by U.S. manufacturers and investors. Apple is leading in its investment in U.S. manufacturing, having recently announced a new \$100 billion U.S. investment through its American Manufacturing Program to build an end-to-end American silicon supply chain and to co-develop and manufacture cellular semiconductor components with U.S. partners across the continent. *See* EX1054. This brings Apple's four-year commitment in U.S. investment to \$600 billion.

If the asserted patents are found unpatentable, early resolution brings efficiency to the parties' dispute. And, even if found not unpatentable, by engaging in this validity investigation, the Board will provide certainty and guidance that would inform U.S. manufacturers and investors, particularly those whose products and services rely on technology similar to those provided by Apple and ACT-defendant Google. Either way, substantive engagement by the Board helps to inform scaling of U.S. production and support infrastructure. In short, referral for merits review advances efficiency and the public interest by reducing friction and enabling informed investment in American manufacturing,

development, services, and support tied to content-sharing or content-storing services or platforms. This includes Apple's iPhone, iPad, MacBook, Apple TV, and other computing systems, as well as the Google Home App and devices that run the Google Home App (e.g., Google Pixel phones, Google Pixel Tablet, and Google Pixel Watch), YouTube, and Google Cloud Content Delivery Network. Reconciliation of the validity of the asserted patents will at best protect the economic interests associated with Apple's (and Google's) ability to continue to provide its products and services to consumers, and at worst clarify the legal landscape surrounding patents that allegedly encumber Apple's (and Google's) technologies for other stakeholders.

Nearly 15 years ago in 2011, Congress passed the Leahy-Smith America Invents Act ("AIA") to address flaws in the patent system. Of particular concern was the proliferation of low-quality patents and the corresponding rise in abusive enforcement, particularly by non-practicing entities (NPEs). *See, e.g., Thryv, Inc. v. Click-To-Call Techs.*, 590 U.S. 45, 54 (2020) ("Congress, concerned about overpatenting and its diminishment of competition, sought to weed out bad patent claims efficiently."); EX1066, 39-40 ("[Q]uestionable patents [were] too easily obtained and too difficult to challenge."). With these concerns in mind, Congress identified as one of the primary goals of the AIA "establish[ing] a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and

counterproductive litigation costs.” *Id.*, 40. Through creation of the PTAB and IPR, Congress aimed to curtail NPE litigation tactics like forum shopping and reduce the economic impact of NPE driven litigation on innovators and the judicial system.

The AIA’s creation of the PTAB and IPR served to improve patent quality, reduce the costs and inefficiencies of district court litigation, and curb forum shopping—benefits Congress recognized would disincentivize litigation of low-quality patents and thus reduce its economic impact on innovators and the judicial system. *See, e.g.*, EX1066, 39-40; EX1071, 56 (noting the importance of the AIA to “address this problem of nonpracticing entities that we believe exploit flaws in the current patent system”).

Here, there can be no doubt that ACT is an NPE. ACT purchased the ’891 Patent (and the other challenged patents) from JVC Kenwood in February 2022 and almost immediately began its assault on industry leaders. ACT’s business is patent assertions and litigation, having two principal locations in the Eastern District of Texas. EX1072; EX1057. ACT is exactly the sort of NPE that the PTAB and the IPR process was designed to counter.

Apple, by contrast, is a technology leader that has invested billions of dollars in new and ongoing economic activity in the United States—i.e., activity that ACT seeks to disrupt through its aggressive and meritless litigation campaign. The public deserves more. The Supreme Court has emphasized that the PTAB’s very “purpose

and design” is fulfilled by addressing the merits of cases, not by shunning much-needed review before it starts. *Thryv, Inc. v. Click-To-Call Techs.*, 590 U.S. at 54 (“By providing for *inter partes* review, Congress, concerned about overpatenting and its diminishment of competition, sought to weed out bad patent claims efficiently”).

Such considerations weigh heavily in favor of referral and Apple respectfully requests an opportunity for the strong grounds presented in its Petition on the ’891 Patent to be considered at the PTAB. In this regard, Apple seeks efficient resolution at the PTAB of the patentability of the challenged claims of yet another patent asserted against it by a highly-litigious and non-practicing entity that is actively pursuing multi-patent litigation campaigns against Apple, and other entities.

2. *The Patentability of the ’891 Patent Claims Has Not Been Previously Adjudicated*

The PTAB has not previously considered any *inter partes* review petition on the ’891 Patent, and no other forum has finally adjudicated the validity of the challenged claims. And, as explained, the District Court will not consider overlapping prior art if institution is granted, leaving the PTAB as the only forum to resolve these issues.

3. *No Changes to the Obviousness Standard Weighs in Favor of Institution*

As explained in the Petition and as further confirmed by this brief, the strong merits of the Petition demonstrate that the '891 Patent's claims are unpatentable in view of the prior art and grounds—which grounds were not previously before the Patent Office during the examination. There has been no change in law or judicial precedent, particularly as it relates to obviousness under Section 103, that would alter a determination of unpatentability of these claims. ACT identifies nothing to the contrary.

IV. ACT LACKS STRONG SETTLED EXPECTATIONS

A. ACT Only Recently Acquired the '891 Patent in 2022

ACT cannot credibly claim that it enjoyed a strong expectation that the '891 Patent claims were patentable by the time it sued Apple in August 2024. The '891 Patent issued September 28, 2010, but ACT only purchased it from JVC Kenwood twelve years later in 2022. EX1057. Within that same year, ACT asserted a number of its acquired patents against Samsung, who timely filed IPR challenges against those patents. EX1063; *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2024-00372, Paper 2 (January 8, 2024); *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2024-00374, Paper 2 (January 8, 2024); *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2024-00327, Paper 2 (January 5, 2024); *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2024-00245,

Paper 2 (December 8, 2023); *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2024-00062, Paper 2 (November 22, 2023); *Samsung Electronics Co., Ltd. v. Advanced Coding Technologies LLC*, IPR2023-00910, Paper 3 (May 12, 2023). Thus, ACT was put on notice of the vulnerabilities of the patents it acquired since at least May 12, 2023—within 2 years of ACT procuring the patents. Indeed, the PTAB instituted the IPRs based on the merits of Samsung’s petitions, even in view of ACT’s arguments in its pre-institution briefing. IPR2024-00372, Paper 9 (July 18, 2024); IPR2024-00374, Paper 11 (July 22, 2024); IPR2024-00327, Paper 11 (July 18, 2024); IPR2024-00245, Paper 7 (June 11, 2024); IPR2024-00062, Paper 11 (May 23, 2024); IPR2023-00910, Paper 8 (December 12, 2023). The parties terminated the IPR proceedings before the Board issued any final written decisions. Therefore, the vulnerabilities to the patentability of the claims of those patents persist; and while there is an open question as to the patentability of those claims, ACT cannot enjoy settled expectations with respect to any of its acquired patents.

Moreover, while ACT earlier sued Samsung and LG based on those patents, which it had purchased from JVC Kenwood, it did *not* assert the ’891 Patent against Samsung or LG. *See* EX1063. As such, to the extent that the prior suit against Samsung or LG could have created any expectations that ACT might also similarly bring suit against Apple—which Apple does not concede—Apple could

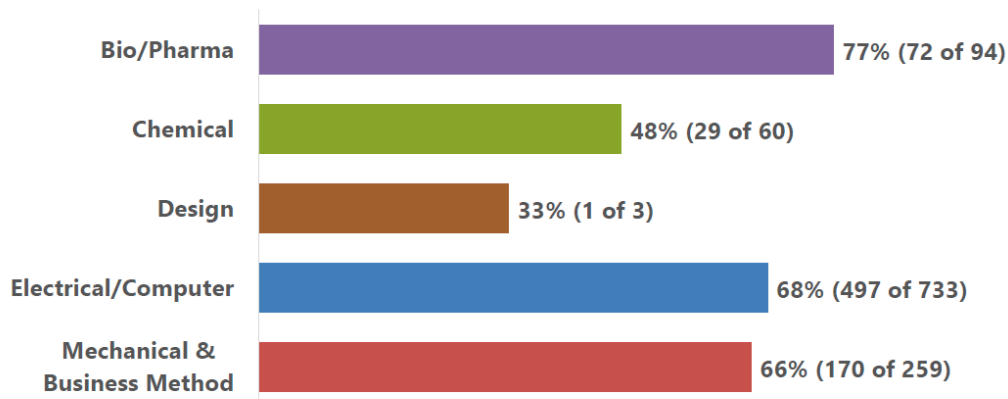
not reasonably have expected that ACT would assert a patent that it had previously purchased but that it had opted not to previously assert against Samsung and LG against similar types of products (e.g., mobile computing devices and the like).

ACT's expectations as to the question of patentability should also turn on other factors that existed at the time it was considering purchasing the patents, including the likelihood of an asserted patent being challenged at the PTAB under IPR. As mentioned above, ACT bought the '891 Patent from JVC Kenwood and executed an assignment on February 28, 2022. According to the USPTO, in Fiscal Year 2022,⁴ 68% of IPR petitions for patents in the Electrical/Computer arts were instituted:

⁴ FY22 is October 1, 2021 to Sept. 30, 2022.

Institution rates by technology

(FY22: Oct. 1, 2021 to Sept. 30, 2022)



Institution rate for each technology is calculated by dividing petitions instituted by decisions on institution (i.e., petitions instituted plus petitions denied). The outcomes of decisions on institution responsive to requests for rehearing are excluded.

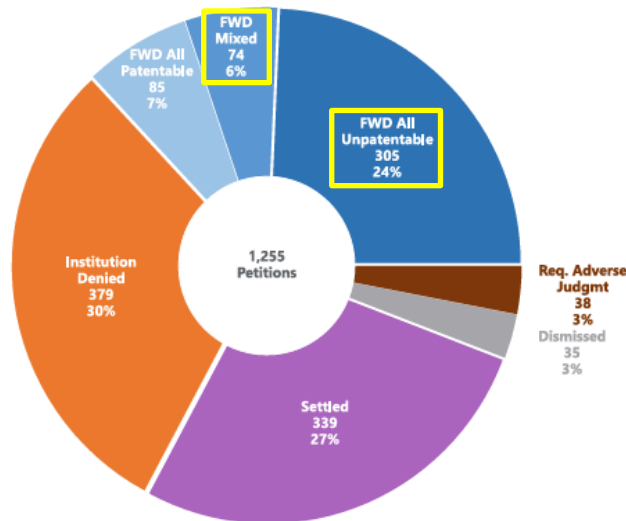


9

EX1058 at 9

And the vast majority of petitions that made it to Final Written Decision resulted in some or all claims found unpatentable:

Outcomes by petition (FY22: Oct. 1, 2021 to Sept. 30, 2022)



FWD patentability or unpatentability reported with respect to the claims at issue in the FWD. Joined cases are excluded.



11

EX1058 at 11 (annotated)

Therefore, at the time that ACT secured the rights to the '891 Patent, a significant number of IPR petitions were being instituted and a significant percentage of claims were being found unpatentable. The statistics show that IPR petitioners were more likely than not to be instituted, and if carried forward, they were successful in rendering most, if not all, challenged claims unpatentable. Thus, it is reasonable to assume that ACT was aware that its assertion of a patent in District Court would have been met with an IPR challenge.⁵ In that context, it is reasonable to conclude that ACT's expectations about the patentability of the '891 Patent

⁵ Indeed, ACT has been a party in no fewer than 19 IPRs since April 2022.

claims were unsettled, and there is no evidence to suggest that those expectations have changed.

Even if ACT were credited with some settled expectations, those expectations are not strong and are far outweighed by Apple's own settled expectations as to non-assertion of the '891 Patent.

Moreover, ACT only recently became litigious, after purchasing patents in February 2022. It brought its first patent lawsuit against ByteDance in April 2022, and not long after, asserted a number of patents against Samsung. *See* EX1070. It has since filed several district court complaints against defendants across the industry including not just Apple but also Samsung, LG, and Google. *See* EX1070. ACT asserted the '891 Patent against Apple in August 2024.

ACT provided no notice to Apple about the '891 Patent before it first launched its litigation action in the Eastern District of Texas in August 2024. There was no reason to expect that ACT would assert the '891 Patent at that time given that over a year and a half had already passed since ACT had initiated its suit against Samsung in December 2022 in a lawsuit that did not even include the '891 Patent.

B. ACT's Unforseeable Infringement Theories are Based on Overly Broad Claim Interpretations Alleged to Ensnare Decades-Old Error Detection Algorithms for Which ACT has no Settled Expectations

ACT's claims to settled expectations are further undermined by its own infringement allegations that stretch the claims of the '891 Patent far beyond any context supported by the specification. Indeed, ACT only recently began to reveal its overly broad claim interpretations through its 2024 infringement complaint against Apple, thereby disrupting Apple's and the public's settled expectations that the '891 Patent was not relevant to whole categories of error detection and corrections techniques. To this point, ACT's infringement charts allege that Apple's "Accused Products comply with 5G-NR network connectivity," and further contend that the 5G standard specification's (3GPP TS 38.212) use of low-density parity-check (LDPC) codes "to detect any error in the transmitted data" infringes claims of the '891 Patent:

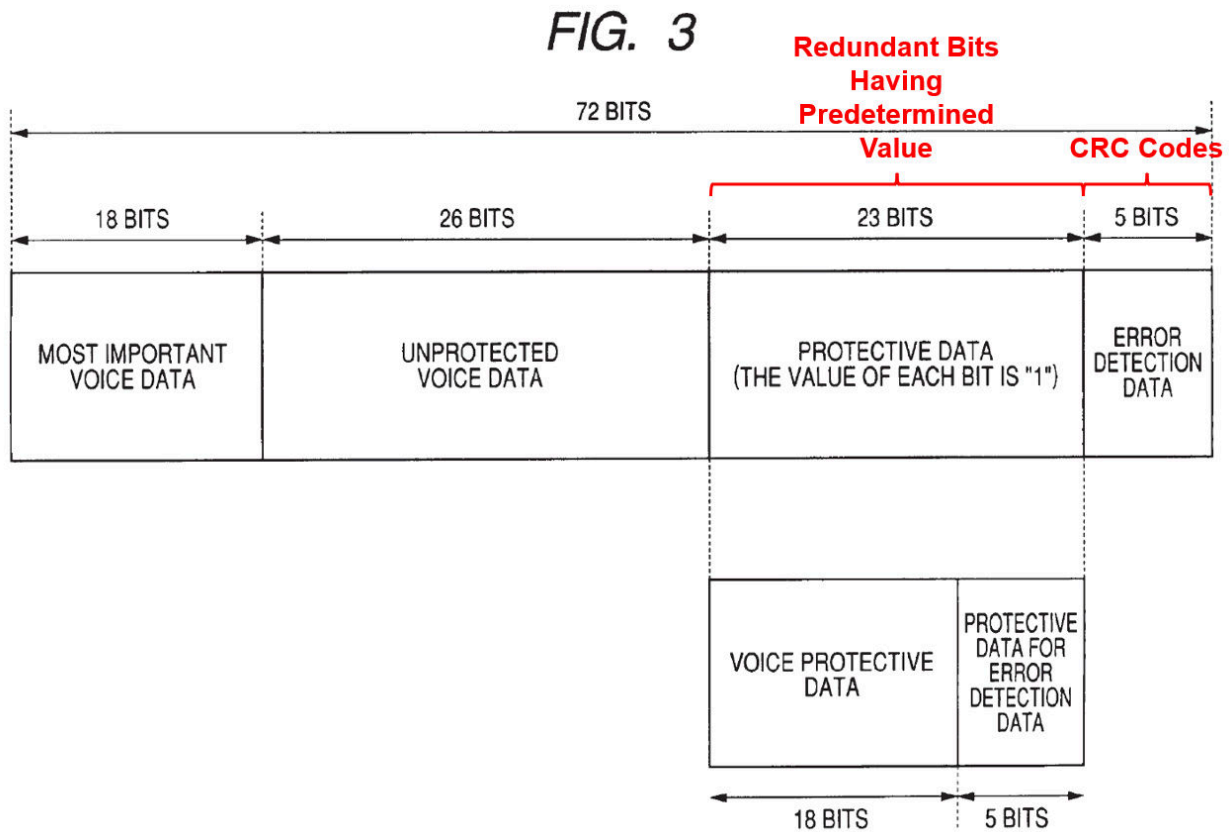
As described below, according to 3GPP TS 38.212, the Low-density Parity-check (LDPC) based Cyclic Redundancy Check (CRC) (i.e., communication quality judging) is used to detect any error in the transmitted data. CRC includes obtaining a data and control stream (i.e., a baseband signal) that consists of a plurality of bit streams (i.e., a sequence of multilevel symbols) represented as $a_0, a_1, \dots, a_{A-1}$ and $p_0, p_1, \dots, p_{L-1}$. The CRC method further includes judging the data and control streams based on these bits (i.e., judging the symbols represented by the baseband signal).

EX1015, 3.

ACT's attempt to expand the '891 claims to read on LDPC codes in 2024 is inconsistent with its claims of settled expectations. As an initial matter, LDPC codes were first invented in the 1960s and precede the earliest priority date of the

'891 Patent by approximately four decades. *See, e.g.*, EX1075, Abstract (“LDPC codes are one of the hottest topics in coding theory today. Originally invented in the early 1960’s, they have experienced an amazing comeback in the last few years.”). Moreover, ACT’s extension of the ’891 Patent to allegedly bear on LDPC codes was never contemplated at the time the application was filed or during original prosecution of the application for the ’891 Patent. The specification never frames the alleged invention as relating to LDPC codes, and indeed, LDPC codes are never once mentioned in the specification. The applicant likewise never alerted the Examiner to the claims’ alleged relevance to LDPC codes before the ’891 Patent issued. *See* EX1001, Cover; EX1002.

ACT’s infringement theory is also based on its assertion that parity bits in the form of cyclic redundancy check (CRC) codes constitute “redundant bits having [a] predetermined value” as claimed. EX1015, 13 (“According to 3GPP TS 38.212, the bit stream is divided into multiple segments with each segment comprised of useful bits and redundant bits. Further, CRC calculations are done using the generator polynomial shown below. During calculations, ... redundant bits are predetermined bits. These attached CRC bits can be used for purpose [of] error detection.”). But the specification of the ’891 Patent explicitly distinguishes between redundant bits (e.g., “protective data”) having a predetermined value (e.g., “the value of each bit is ‘1’”) and parity bits such as CRC values:



EX1001, FIG. 3; *see also id.*, 6:51-63 (“The error detection data in the vocoder output data is composed of cycle redundancy check (CRC) data for detecting errors”), 6:48-50 (“the value of any bit constituting the voice protective data and protective data for error detection data is ‘1’”).

In service of its infringement theory targeting well-known error-detection techniques, ACT conflates “redundant bits having [a] predetermined value” with CRC codes in a manner completely at odds with the specification. Rather than abide by the distinction between CRC codes and bits that have a predetermined value as set forth in the specification, ACT’s infringement theory does the opposite

by treating CRC codes themselves as “redundant bits having [a] a predetermined value.” This theory is not only incorrect, but it was also unforeseeable, and therefore nullifies ACT’s claims of settled expectations. There was no settled expectation that the challenged claims encompassed CRC codes as redundant bits having a predetermined value, and ACT presents no evidence of the same. ACT instead raised this novel theory for the first time in 2024 infringement case. ACT’s strategy of advancing infringement theories based on unforeseeable claim interpretations to target decades-old error-detection algorithms (e.g., LDPC) specified in standards-based technologies (e.g., 5G) should not be condoned. This strategy reflects an abuse of the patent system—not settled expectations for the patent owner.

C. Regardless of ACT’s Claims to Settled Expectations, Discretionary Denial is Inappropriate Due to the Examiner’s Material Errors During Prosecution

Even if ACT had any legitimate claim to settled expectations (it does not), those expectations would be offset and overcome by material error in the examination of the ’891 Patent. In *Anthony*, “challenged patents ... in force for approximately eighteen and seventeen years” did not support discretionary denial because “Petitioner appears to show a material error by the Office.” IPR2025-00559, Paper 12, 2. Here, the ’891 Patent is younger than the patents at-issue in *Anthony*, but similarly, it is an “appropriate use of Office resources to review” the material error that occurred during original examination. *Id.*; see also *id.*, *Taiwan*

Semiconductor, IPR2025-00847, Paper 11, at 2-3 (referring petition on 15-year old patent based on petitioner's demonstration of material error.

As described in Section II.A, the material error that occurred during original examination of the '891 Patent stemmed from the Examiner's failure to recognize that the prior art of record discloses the limitation that formed the basis of allowance of the application for the '891 Patent. *Anthony*, IPR2025-00559, Paper 12, 2 (noting that "the patent examiner erred by overlooking the teachings of Carter" in "issu[ing] a notice of allowance of both patent applications as the first Office Action"); *Taiwan Semiconductor*, IPR2025-00847, Paper 11, at 2-3 ("[T]he patent examiner overlooked certain teachings in [the cited prior art] that appear to disclose the claimed features that the patent examiner indicated were not taught by the prior art of record ... Petitioner appears to show a material error by the Office, and it is an appropriate use of Office resources to review the potential error."); *Wilus*, IPR2025-00935, Paper 12, at 2-3 ("Petitioner persuasively argues that the patent examiner overlooked certain teachings ..."). More specifically, for example, the Examiner allowed the challenged claims of the '891 Patent despite Yamane's (EX1004) explicit disclosure of the "data changing means" limitation that the applicant amended into the independent claims to secure allowance. *Supra*, §III.A. The Examiner compounded the error by overlooking the applicant's citation of a Japanese office action that showed how the examiner of a counterpart

Japanese application applied Yamane to reject the same claim limitation based on disclosure unacknowledged by the Examiner of the '891 Patent. EX1074. This reflects material error during examination. Such conduct frustrates the Office's examination process and disturbs the settled expectations of implementers and the public. *Ecto World, LLC, et al. v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13, 5 (May 19, 2025) (precedential).

V. CONCLUSION

For the foregoing reasons, a holistic evaluation of the complex and diverse litigation between the parties, material errors committed during examination, and the additional considerations laid out in the Interim Process Memorandum strongly weigh against discretionary denial. Petitioner therefore respectfully requests that this case proceed to an institution determination on the merits.

Respectfully submitted,

Dated: October 2, 2025

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CERTIFICATION UNDER 37 CFR §42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petitioner's Opposition to Patent Owner's Discretionary Denial Brief totals 8,994 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on October 2, 2025, a complete and entire copy of this Petitioner's Opposition to Patent Owner's Request for Discretionary Denial of Institution and Accompanying Exhibits were provided by email to the Patent Owner by serving the correspondence email address of record as follows:

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