

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

COLLISION COMMUNICATIONS, INC.,
Patent Owner.

IPR2025-00011
Patent 7,920,651 B2

Before NEIL T. POWELL, CHARLES J. BOUDREAU, and
KEVIN C. TROCK, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. BACKGROUND

Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd. (collectively, “Petitioner”) filed a Petition for *inter partes* review of claims 1–4 and 6–8 of U.S. Patent No. 7,920,651 B2 (Ex. 1001, “the ’651 patent”). Paper 3 (“Pet.”). Collision Communications, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

On March 7, 2025, we authorized each of the parties to file a two-page brief “addressing the effect of the USPTO’s recent recission of the June 21, 2022, Director’s memorandum entitled *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation.*” Ex. 3001 (email dated Mar. 7, 2025). Thereafter, Petitioner and Patent Owner filed their respective briefs. *See* Paper 10 (Petitioner’s brief); Paper 11 (Patent Owner’s brief).

An *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Institution of *inter partes* review, however, is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). For the reasons discussed below, we exercise discretion under 35 U.S.C. § 314(a) not to institute *inter partes* review.

B. RELATED PROCEEDINGS

The parties identify the following proceedings as involving the ’651 patent or related patents: *Collision Communications, Inc. v. Samsung Electronics Co. Ltd.*, 2-23-cv-00587 (E.D. Tex.); *Collision Communications,*

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Inc. v. Lenovo Group Limited, 2-23-cv-00594 (E.D. Tex.); *Collision Communications, Inc. v. Telefonaktiebolaget LM Ericsson*, 2-21-cv-00327 (E.D. Tex.); *Collision Communications, Inc. v. Nokia Networks & Solutions Oy*, 2-21-cv-00308 (E.D. Tex.); IPR2022-01233; IPR2024-01247; IPR2024-01248; IPR2024-01249; IPR2024-01250; IPR2024-01500; IPR2025-00284; IPR2025-00285; IPR2025-00301; IPR2025-00302; and IPR2025-00303. Pet. 65; Paper 7, 2–4.

C. THE '651 PATENT

The '651 patent “relates to communications and more particularly to co-channel communications, and more particularly to increasing capacity by allowing interfering channels.” Ex. 1001, 1:29–32. The '651 patent states that “[t]he present invention provides Turbo-decoding for joint signal demodulation based on an iterative decoding solution that exploits error correction codes.” *Id.* at code (57).

One embodiment appears in Figure 2, which is reproduced below.

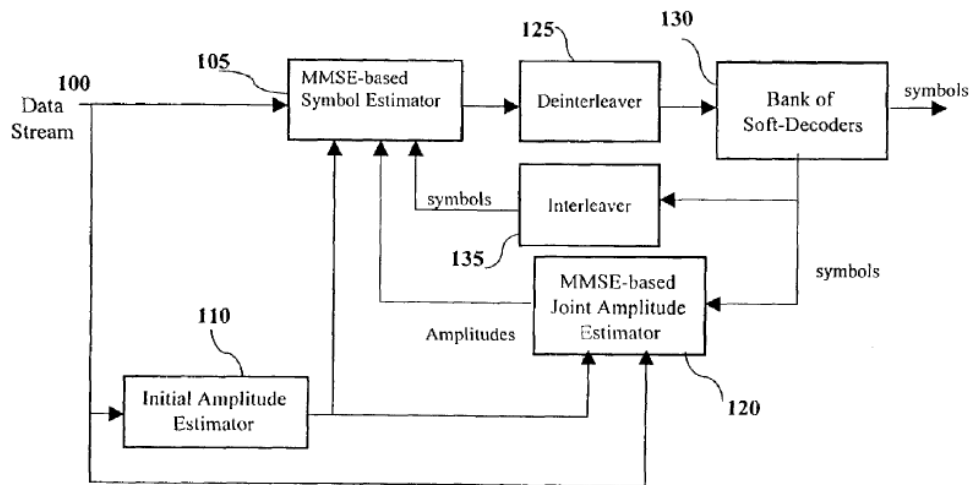


Figure 2

“[Figure] 2 is a block diagram perspective showing joint symbol amplitude and data rate estimator for one embodiment.” Ex. 1001, 11:19–21.

The system shown in Figure 2 includes MMSE-based symbol estimator 105, initial amplitude estimation module 110, MMSE-based joint amplitude estimator 120, bank of decoders 130, and certain other components. Ex. 1001, 15:43–45, 16:1–25. MMSE-based symbol estimator 105 receives data stream 100, as well as amplitude estimates from initial amplitude estimation module 110. *Id.* at 14:61–65, 15:43–45. MMSE-based symbol estimator 105 supplies bank of decoders 130 with symbols estimates. *Id.* at 16:1–4.

Bank of decoders 130 outputs “symbol estimates and their respective likelihoods,” with the symbol likelihood estimates “fed back around to both the MMSE-based symbol estimator 105 and MMSE-based [joint] amplitude estimator 120.” *Id.* at 16:16–22. “The single user decoders consist of a bank

of K decoders that may consist of Soft-output Viterbi or Maximum A Posteriori based techniques such as BCJR.” *Id.* at 16:7–9.

Using these components, the system iteratively estimates symbols:

The new symbol likelihoods from the decoders 130 are used to update previous amplitude estimates in the joint amplitude estimator 120. . . . The new amplitude estimates from the joint amplitude estimator 120 are passed to the MMSE-based Symbol Estimator 105 that re-estimates the symbols based on prior information on the symbols and the updated parameter estimates. These updated symbol estimates from the symbol estimator 105 are then re-routed to the bank of decoders 130. This process is repeated for either some fixed number of iterations or until the estimates of the bit error rate or frame error rate achieve some desired level.

Ex. 1001, 16:38–50.

The ’651 patent discusses computation of initial amplitude estimates in connection with Figure 3, which is reproduced below.

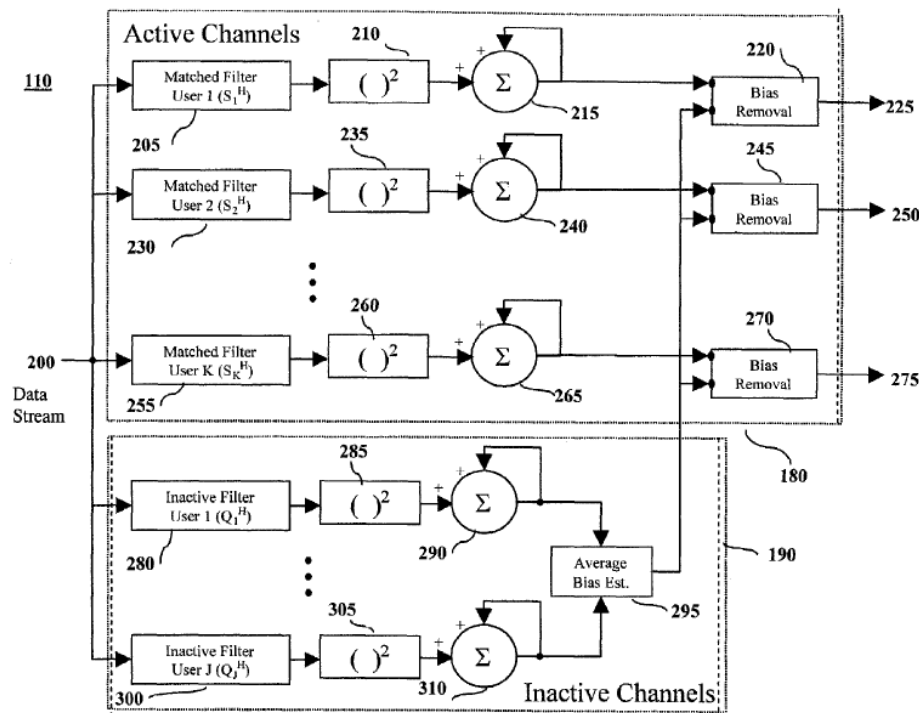


Figure 3

“[Figure] 3 is a schematic block diagram showing initial amplitude estimation” with Figure 2’s Initial Amplitude Estimator 110. Ex. 1001, 11:23–24, 16:51–53.

Initial amplitude estimator 110 applies filters 205, 230, 255, 280, and 300 to an incoming data stream. Ex. 1001, 17:48–49. Using the results of that process, initial amplitude estimator 110 produces “initial amplitude squared estimates 225, 250, 275 for each user 1-K.” *Id.* at 17:58–18:29.

“[T]he initial amplitude squared estimates are updated in the MMSE-based Joint Amplitude Estimator 120. The apparatus for updating these amplitude estimates is described in [Figure] 4.” Ex. 1001, 18:45–48.

Figure 4 is reproduced below.

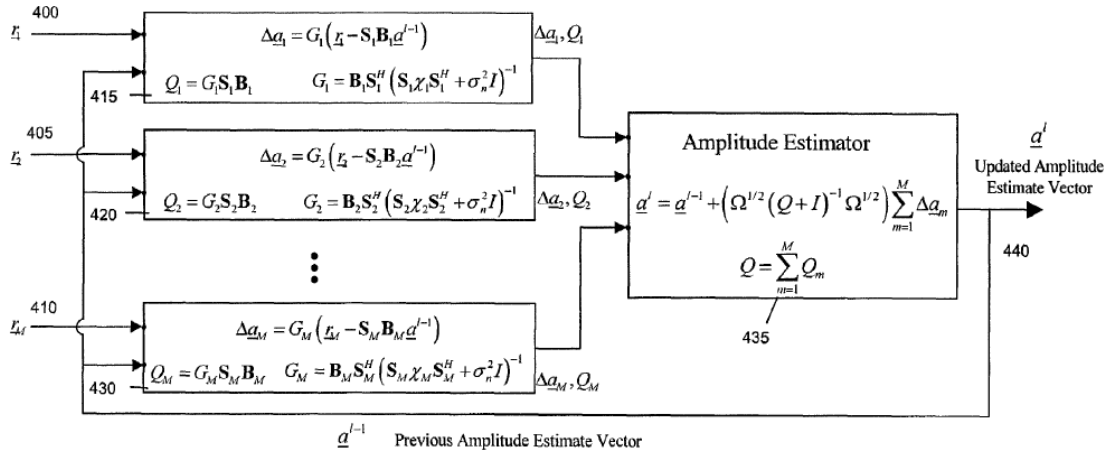


Figure 4

“Figure 4 is a schematic block diagram showing [a] joint amplitude estimator.” Ex. 1001, 11:24–25.

In the approach illustrated by Figure 4, “data stream 100 is divided up into M observation intervals as illustrated by r_1 , r_2 , through r_M 400, 405, 410.” Ex. 1001, 18:65–67. “These observation intervals each enter a different processing section 415, 420, 430, representing 1 to M observation

intervals.” *Id.* 19:3–5. “Following the computation of M different MMSE filters in each of the 1-M modules 415, 420, 430, each MMSE filter is applied to components of the respective data stream 400, 405, 410 corresponding to the same observation interval.” *Id.* at 19:42–45. “[I]ndividual amplitude estimates from the filter modules 415, 420, 430 are passed to the Amplitude Estimator 435.” *Id.* at 20:12–13. “The MMSE-based joint amplitude estimator 435 combines the individual estimates, Δa_m , in a weighted manner.” *Id.* at 19:64–66. “Once processing is completed, the updated amplitude estimate vector 440 is transmitted from the MMSE-based Joint Amplitude estimator 120 to the MMSE-based symbol estimator 105.” *Id.* at 20:52–55.

D. ILLUSTRATIVE CLAIM

Of the challenged claims, claims 1 and 6 are independent. Each of claims 2–4, 7, and 8 depends from one of independent claims 1 and 6. Independent claim 1 is illustrative and is reproduced below with Petitioner’s bracketing added for reference:

1. [1pre] A joint amplitude estimator for a data stream from multiple users, comprising:
 - [1a] a data stream from said multiple users divided into a plurality of observation intervals;
 - [1b] a plurality of processing modules coupled to said observation intervals, wherein said processing modules calculates interference cancellation values for each of said users and computes a filter for each of said observation intervals, said filter being applied to said data within said observation interval to compute individual amplitude estimates; and
 - [1c] an amplitude estimation unit which processes said individual amplitude estimates and calculates new amplitude estimates, wherein said new amplitude

estimates are iteratively passed back to said processing modules either a maximum number of iterations or a desired bit error rate have been reached.

Ex. 1001, 26:18–36; Pet. 25–34

E. ASSERTED GROUNDS OF UNPATENTABILITY AND DECLARATION EVIDENCE

Petitioner challenges the patentability of claims 1–4 and 6–8 of the '651 patent on the following grounds (Pet. 7):

Ground	Claims Challenged	35 U.S.C. §	References
1	1–4, 6–8	103(a) ¹	Fuller ² , Reznik ³
2	1–4, 6–8	103(a)	Frank ⁴ , Zha ⁵

Additionally, Petitioner supports its challenge with a Declaration of Paul S. Min, Ph.D. Ex. 1003. Patent Owner supports its Preliminary Response with a Declaration of Giuseppe Caire. Ex. 2001.

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), revised 35 U.S.C. § 103, effective March 16, 2013. The '651 patent's filing date is before March 16, 2013, so we apply the pre-AIA version of § 103. Ex. 1001, code (22).

² Fuller et al., U.S. Patent No. 6,931,052 B2, issued Aug. 16, 2005 (Ex. 1004, “Fuller”).

³ Reznik, U.S. Patent No. 6,724,809 B2, issued Apr. 20, 2004 (Ex. 1005, “Reznik”).

⁴ Frank et al., U.S. Patent Application Publication No. 2003/0035469 A1, published Feb. 20, 2003 (Ex. 1006, “Frank”).

⁵ Zha et al., “Soft-Decision Successive Interference Cancellation CDMA Receiver with Amplitude Averaging and Robust to Timing Errors,” Proc. IEEE Global Telecommunications Conference, 2001 (GLOBECOM '01), vol. 2, 2001, pp. 743–747 (Ex. 1010, “Zha”).

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner, supported by Dr. Min’s testimony, proposes that a person of ordinary skill in the art at the time of the invention would have had “at least a bachelor’s degree in electrical engineering, computer engineering, computer science, physics, or an equivalent field, and two years of experience with cellular telecommunications, radio-access network architectures and protocols, and signal propagation in wireless networks.” Pet. 6 (citing Ex. 1003 ¶ 56). Petitioner further proposes that “[m]ore education can supplement practical experience and vice versa.” *Id.* (citing Ex. 1003 ¶ 56).

In its Preliminary Response, Patent Owner does not take a position on the relevant level of ordinary skill in the art. *See generally* Prelim. Resp. At this stage of the proceeding and on the present record, we adopt Petitioner’s uncontested proposed level of ordinary skill in the art, which we find consistent with the level of ordinary skill in the art reflected by the ’651 patent and the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

B. PRIOR ART REFERENCES

1. *Overview of Fuller*

Fuller “relates to wireless communications, and in particular to enhancing parallel interference cancellation employed in code-division multiple access communication systems for the mitigation of multiple access interference.” Ex. 1004, 1:7–11. Fuller explains that “[i]n a typical parallel interference cancellation (PIC) system, the input signal is composed of

multiple(M) user signals separated by orthogonal codes.” *Id.* at 4:10–12. “[T]he input signal is separated into M individual signals corresponding to each of the multiple users and demodulated to recover K symbols for each of the M individual signals.” *Id.* at 4:13–16. These symbols are processed “to create M regenerated signals.” *Id.* at 4:16–19. “For each user, the regenerated signals for the other M-1 users are subtracted from the original input signal to form M new individual signals. This last step is repeated for each user to create M individual signals for each of the M users.” *Id.* at 4:19–23.

Fuller discusses an example in connection with Figure 2, which is reproduced below.

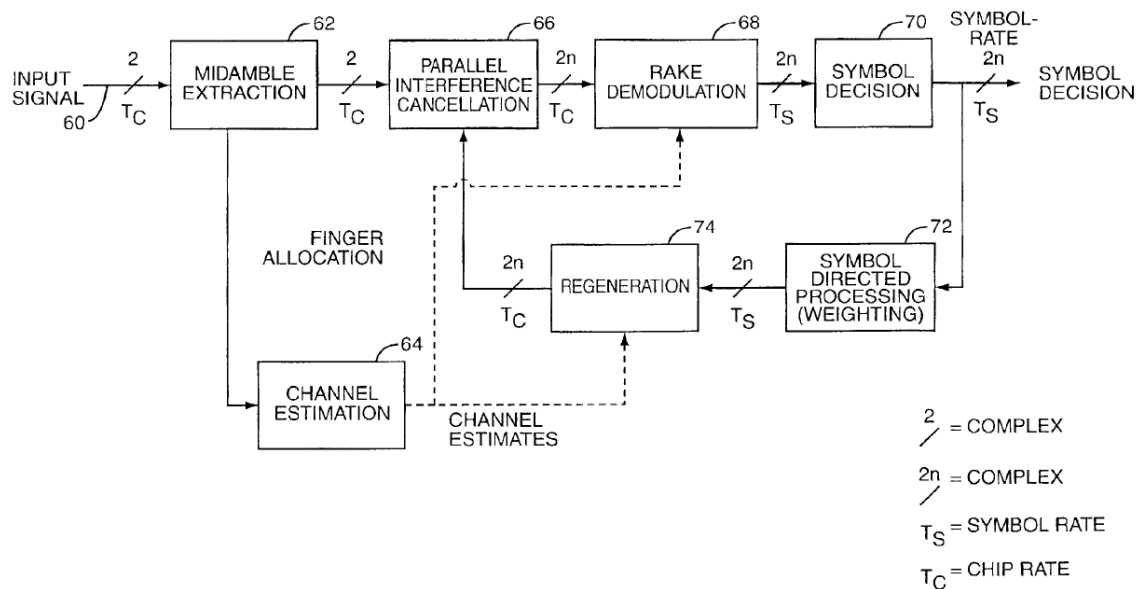


FIG. 2

Figure 2 shows “PIC detector circuitry” that performs the functions of midamble extraction 62, channel estimation 64, parallel interference cancellation 66, rake demodulation 68, symbol decision 70, symbol-directed processing 72, and signal regeneration 74. Ex. 1004, 4:36–38, 4:48–53.

“Initially, the midamble extraction function 62 extracts the midamble from the received input signal 60 for a given slot, and a channel estimate is obtained for each user from the channel estimation function 64 in traditional fashion.” Ex. 1004, 4:66–5:2. “Upon reception, the PIC function 66 is bypassed and rake demodulation 68 separates the composite input signal 60 into M individual signals corresponding to the respective signals for each user.” *Id.* at 5:9–12. “Symbol estimates for each user are determined by applying the symbol decision function 70 to the outputs of the rake demodulator 68 in traditional fashion.” *Id.* at 5:25–28. Then, symbol-directed processing 72 is executed on the symbol estimates. *Id.* at 5:31–32. “The regeneration function 74 essentially recreates estimates of the individual signals from the weighted symbols for each of the estimated users and individually process the modulated symbols based on the corresponding channel estimates.” *Id.* at 5:40–44.

Fuller discusses an alternative embodiment in connection with Figure 10, which is reproduced below.

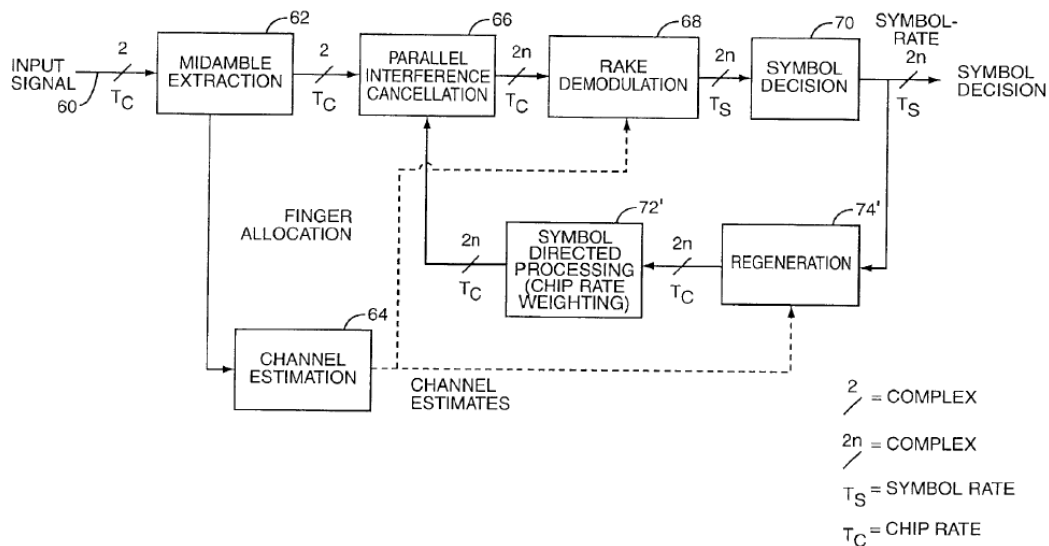


FIG. 10

Figure 10 shows PIC detector circuitry in which “the regeneration functions and weighting functions are reversed from the embodiment described above.” Ex. 1004, 8:21–27. In this embodiment, after “regeneration function 74' . . . recreates estimates of the individual signals,” “[s]ymbol-directed processing 72' is then performed at the chip-rate on the signal estimates.” *Id.* at 9:10–14, 9:31–32.

2. Overview of Reznik

Reznik “relates to a parallel interference cancellation receiver system and method for the simultaneous reception of data from multiple users.” Ex. 1005, 1:14–16. Reznik shows one parallel interference cancellation receiver in Figure 8, which is reproduced below.

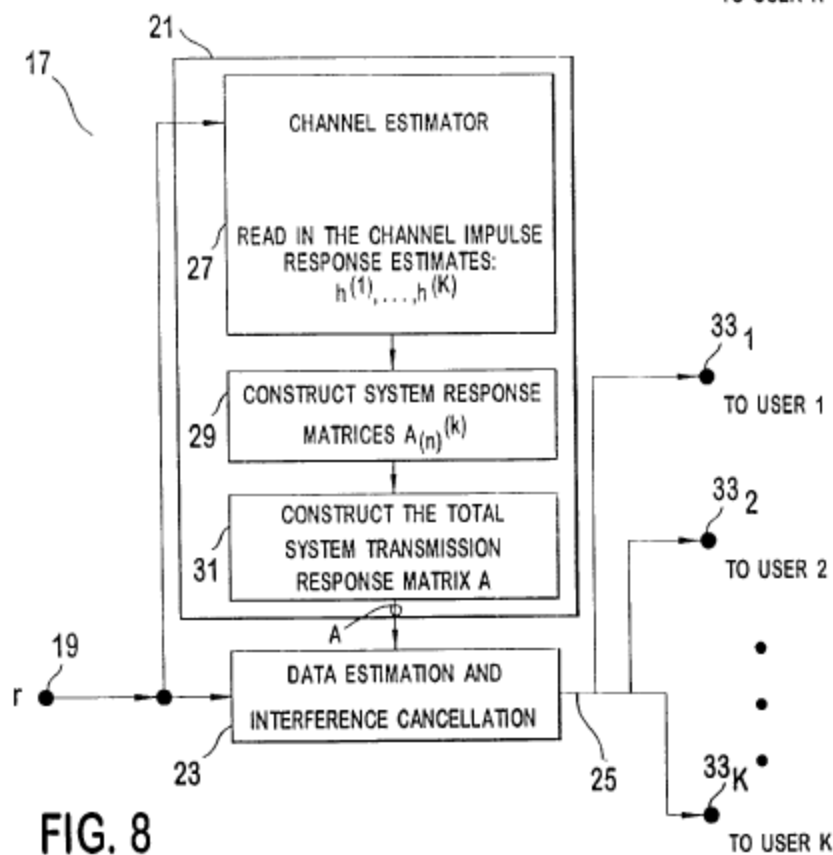


Figure 8 is a block diagram showing parallel interference cancellation receiver 17. Ex. 1005, 8:42–43, 8:56–57.

Receiver 17 includes input 19, channel estimation processor 21, data estimation and interference canceller 23, and output 25. Ex. 1005, 8:59–67. Input 19 is “for inputting data from all users k transmitted in a discrete block of time.” *Id.* at 8:59–61. Channel estimation processor 21 “deriv[es] individual impulse response estimate $h^{(k)}$ for each user and assembl[es] a total system response matrix A .” *Id.* at 8:62–65. Data estimation and interference canceller 23 “generat[es] interference free user data $d^{(k)}$.” *Id.* at 8:65–66. Output 25 is “for outputting user data $d(k)$ for each user k from the received channel data r in the form of an output vector.” *Id.* at 8:67–9:2.

Reznik’s Figure 9 is reproduced below.

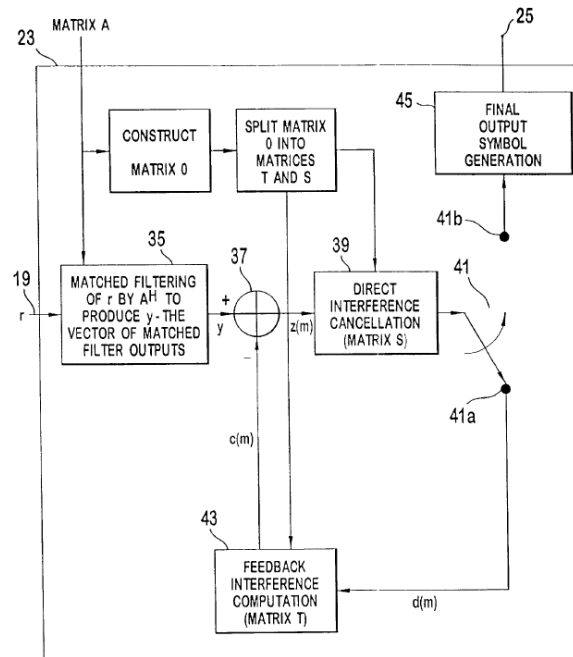


FIG. 9

According to Reznik, Figure 9 shows data detection processor 23 comprised of matched-filter 35, adder 37, direct interference canceller 39⁶, iteration counter/switch 41, feedback interference processor 43, and symbol generator 45. Ex. 1005, 9:37–45.

Data estimation and interference canceller 23 receives data vector r and outputs information regarding output symbol estimates. Ex. 1005, 10:3–4, 49–52. Matched-filter 35 receives data vector r and “produce[s] the matched-filter output vector y . Each element of the output vector y corresponds to a preliminary estimate of a particular symbol transmitted by a given user.” *Id.* at 10:3–8. Output vector y goes to direct interference canceller 39, which “performs a partial interference cancellation operation on . . . output vector y .” *Id.* at 10:9–12. Direct interference canceller 39 outputs data symbol estimates d as “input to the feedback interference processor 43 through an iteration/counter switch 41a.” *Id.* at 10:10–16. Feedback interference processor 43 uses output estimates d to produce “interference estimates output as a vector c that were not previously canceled by the direct interference canceller 39.” *Id.* at 10:17–20. Subtracting interference estimates c from output vector y produces result z , which “is the matched-filter 35 output vector y less the subtracted interference estimates c .” *Id.* at 10:21–24.

Reznik discloses iteratively cancelling interference, explaining that “[t]he iterative interference subtraction process may be repeated m times

⁶ Because Figure 9 uses reference numeral 39 to refer to the component identified as “DIRECT INTERFERENCE CANCELLATION (MATRIX S),” the text’s recitation of “direct interference canceller 38” appears to be a typographical error. Ex. 1005, 9:42, Fig. 9; *see also id.* at 10:19, 29–30.

depending upon the degree of desired signal correction. After m iterations, the interferers are removed from the matched-filter 35 output y and the iteration/counter switch 41 is thrown 41 b outputting d for final output symbol generation 45.” Ex. 1005, 10:23–28.

3. *Overview of Frank*

Frank’s disclosed “invention relates, in general, to receivers for code division multiple access (CDMA) communication systems, and more particularly, to receivers having linear, minimum mean square error equalization with successive or parallel interference cancellation for mobile communication forward links.” Ex. 1006 ¶ 1. Frank shows one receiver in Figure 1, which is reproduced below.

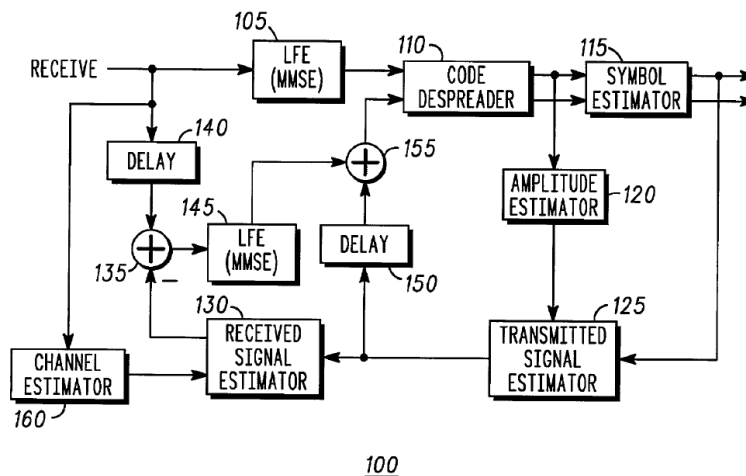


FIG. 1

Frank’s “[Figure] 1 is a block diagram illustrating a preferred receiver 100 for MMSE equalization with parallel interference cancellation.” Ex. 1006 ¶ 18.

Receiver 100 includes “linear feedforward equalizer (‘LFE’) 105,” code despreader 110, symbol estimator 115, amplitude estimator 120, transmitted signal estimator 125, received signal estimator 130, and certain

other components. Ex. 1006 ¶¶ 18–20. Linear feedforward equalizer 105 receives a “signal, such as a CDMA signal received by a mobile station.” *Id.* ¶ 18. LFE 105 produces “an estimate of the transmitted signal which has minimum mean square error relative to an actual transmitted signal.” *Id.* Then, code despreader 110 “removes or despreads the filtered signal.” *Id.* ¶ 19. “The despread and demodulated signal is then input into symbol estimator 115, which produces an output stream consisting of symbol estimates or (soft) symbol decisions, for further use in a communication device, such as for decoding and ultimately to provide audio or data to the user.” *Id.*

The system also uses symbol estimates for parallel interference cancellation. Ex. 1006 ¶ 20. Transmitted signal estimator 125 receives the symbol estimates. *Id.* Using “amplitude estimates from block 120” and certain other information, transmitted signal estimator 125 “produce[s] an estimated transmitted signal.” *Id.* Using a channel estimate from channel estimator 160, “received signal estimator 130 filters the estimated transmitted signal to produce an estimated received signal.” *Id.* “[T]he estimated received signal is subtracted from the actual received signal . . . in summer 135.” *Id.* This removes multiple access interference. *Id.* ¶¶ 21–22.

“The residual signal from summer 135 is input into a second LFE 145.” Ex. 1006 ¶ 21. Subsequent processing via second LFE 145 and combiner 155 “produce[s] a second, or next, enhanced estimate of the transmitted signal.” *Id.* This may be processed by code despreader 110, symbol estimator 115, and transmitted signal estimator 125 “for additional iterations, or may be output as symbol estimates or (soft) decisions, for further use.” *Id.*

4. *Overview of Zha*

Zha discusses interference cancellation in a multiuser detection method. Ex. 1010, 743.⁷ Noting that multiple access interference (“MAI”) limits the capacity of a code division multiple access (“CDMA”) system, Zha explains that “multiuser detection is an effective method to suppress MAI and improve uplink system capacity.” *Id.*

Zha notes that some known multiuser detectors use successive interference cancellation (“SIC”). Ex. 1010, 743. “The SIC regenerates and cancels other users’ signals before data detection of the desired user.” *Id.*

Zha discusses the advantages of using different types of known decision rules in interference cancellation: “[i]nterference cancellation using the linear soft-decision rule has no error propagation with iterations converging to the decorrelating detector. On the other hand, hard-decision interference cancellation can completely cancel interference when the hard decisions made are correct.” Ex. 1010, 743. Zha “propose[s] to combine the advantages of these two decision rules. When the instantaneous estimated signal amplitude is small compared to the average amplitudes, linear cancellation is used. Otherwise hard-decision cancellation is employed.” *Id.*

Zha discloses an “SIC receiver with amplitude averaging.” Ex. 1010, 744. The receiver “has multiple interference cancellation stages.” *Id.* During one stage, the following steps occur: (1) “the k -th user’s received signal is estimated by subtracting other users’ regenerated signals from the received signal $r(i)$,” (2) the average amplitude is estimated “by averaging the instantaneous estimate of user k ’s amplitudes over a block of M bits,”

⁷ When citing Zha, we refer to Zha’s native page numbers, rather than those added by Petitioner.

and (3) a soft data bit estimate is obtained and a data bit decision is made “[f]or each bit in the block, $i = 1, \dots, M$.” *Id.* When making the data bit decision, Zha uses decision rule “ f_{dec} .” *Id.* Zha shows some decision rules in Figure 1, which is reproduced below.

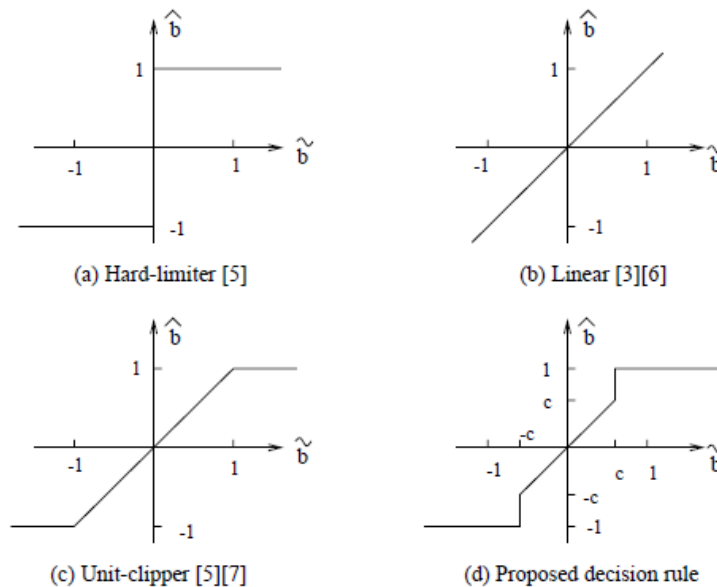


Fig. 1. The decision rules for SIC CDMA detectors.

Figure 1 shows “decision rules for SIC CDMA detectors.” Ex. 1010, 746.

Zha’s proposed decision rule appears in the lower right corner of Figure 1. Ex. 1010, 746, Fig. 1. According to Zha, its “decision rule makes a linear soft bit decision when the value of the normalized soft bit estimate is small, and so will benefit from the convergence property of the linear SIC,” but the decision rule otherwise “makes a hard bit decision, which cancels the interference completely with a high probability.” *Id.* at 744.

C. CLAIM INTERPRETATION

In an *inter partes* review proceeding, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b)

(2024). The claim construction standard includes construing claims in accordance with the ordinary and customary meaning of such claims, as would have been understood by one of ordinary skill in the art at the time of the invention. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc). In construing claims in accordance with their ordinary and customary meaning, we take into account the specification and prosecution history. *Phillips*, 415 F.3d at 1315–17.

Petitioner “contends no claim terms need construction.” Pet. 20. Patent Owner does not dispute this assertion. *See generally* Prelim. Resp.

For purposes of this Decision, we need not and do not construe expressly any claim language. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

D. DISCRETIONARY REVIEW UNDER 35 U.S.C. § 314(A)

The Board’s decision in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), identifies a non-exclusive list of factors the Board considers when addressing whether a related, parallel district court action provides a basis for discretionary denial under 35 U.S.C. § 314(a). *Fintiv*, 5–16. These factors include:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;

4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Id. at 5–6. We take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review” when evaluating these factors. *Id.* at 6.

Petitioner asserts that the *Fintiv* factors “favor institution.” Pet. 61. Patent Owner contends that “[t]he *Fintiv* factors heavily weigh in favor of discretionary denial.” Prelim. Resp. 42.

1. *Fintiv Factor 1: Whether the Court Granted a Stay or Evidence Exists that One May Be Granted if a Proceeding is Instituted*

Petitioner asserts that Factor 1 “is neutral because no party has requested a stay.” Pet. 61. Patent Owner contends that the lack of a stay weighs in favor of discretionary denial. Prelim. Resp. 44.

We agree with Petitioner that the lack of a stay makes Factor 1 neutral regarding whether to discretionarily deny institution.

2. *Fintiv Factor 2: Proximity of the Court's Trial Date to the Board's Projected Statutory Deadline for a Final Written Decision*

Petitioner argues that Factor 2 “should be considered neutral.” Pet. 62. In its Petition, Petitioner explained that “[t]he earliest estimated trial date for the district court litigation is far in the future as jury selection is not set to begin until at least September 8, 2025,” and “much can change in one year.” *Id.* In its Supplemental Brief on *Fintiv*, Petitioner noted that “[t]rial

is currently scheduled for September 8, which is about seven months before the Board’s anticipated FWD date.” Paper 10, 2.

Patent Owner argues that Factor 2 weighs in favor of discretionary denial. Prelim. Resp. 44–45. Patent Owner asserts that “any final written decision would issue *over six months* after the trial date.” *Id.* at 44.

We do not agree with Petitioner that *Fintiv* Factor 2 is neutral. Instead, because the trial date in district court is currently scheduled approximately seven months before a final written decision would be due in this proceeding, we agree with Patent Owner that Factor 2 favors discretionary denial.

3. *Fintiv Factor 3: Investment in the Parallel Proceeding by the Court and the Parties*

Petitioner argues that this factor “weighs heavily against discretionary denial.” Pet. 62. Petitioner asserts that it “diligently prepared this Petition and filed over five months before the statutory deadline.” *Id.* at 63. In the Petition, Petitioner argued that “[t]he associated district court case is still in the very early stages of litigation: discovery is still in the preliminary stages, the Defendants served their invalidity contentions on June 3, 2024, and Claim Construction hearing is not scheduled until March 10, 2025.” *Id.* at 62. In its Supplemental Brief on *Fintiv*, Petitioner added that “expert discovery has not yet begun, and the Court has not yet construed any claims.” Paper 10, 2.

Patent Owner counters that “[b]y the . . . deadline for institution [of an *inter partes* review], the parties will have invested substantial resources.” Prelim. Resp. 46. In support of this, Patent Owner argues the parties will have completed the following activities: “[c]ompletion and service of invalidity contentions,” “[c]ompletion of claim construction discovery,”

“[s]ubstantial completion of document production,” “[e]xchange of privilege logs,” “[f]iling of technical tutorials for claim construction,” “[f]iling of opening claim construction brief,” and “[f]iling of responsive claim construction brief.” *Id.*

We do not agree with Petitioner’s argument that this factor weighs heavily against denying institution. The current record shows that the parties have already exchanged infringement and invalidity contentions, engaged in fact discovery, exchanged proposed claim terms, filed a joint claim construction statement, and attended a claim construction hearing. *See* Ex. 2010, 3–5. The deadline to complete fact discovery has also passed. *See* Ex. 2008, 3. Thus, contrary to Petitioner’s arguments, the parties and the District Court will have expended significant resources by the time this decision on institution issues. Accordingly, we find that *Fintiv* Factor 3 somewhat favors the exercise of discretionary denial

4. *Fintiv Factor 4: Overlap between Issues Raised in the Petition and in the Parallel Proceeding*

Petitioner stipulates that if we institute trial, Petitioner “will not pursue in the parallel litigation, *Collision Communications, Inc. v. Samsung Electronics Co., Ltd. et al.*, No. 2:23-cv-00587 (E.D. Tex.), the same grounds in the Petition (Paper 1) or any grounds that could have reasonably been raised before the Board with respect to U.S. Pat. No. 7,920,651.” Paper 9, 2.

Petitioner’s broad stipulation mitigates certain concerns of duplicative efforts between the District Court and the Board, as well as concerns of potentially conflicting decisions. Accordingly, Factor 4 weighs strongly against exercising discretion to deny institution. *Sotera Wireless, Inc. v.*

Masimo Corp., IPR2020-01019, Paper 12, 19 (PTAB Dec. 1, 2020)
(precedential)

5. *Fintiv Factor 5: Whether the Petitioner and the Defendant in the Parallel Proceeding are the Same Party*

There is no dispute that the parties are the same in both proceedings. Petitioner nonetheless argues that Factor 5 is neutral. Pet. 63. Patent Owner counters that “[p]recedential PTAB authority holds that where the petitioner and the defendant in the parallel proceedings are the same party, [Factor 5] favors denial.” Prelim. Resp. 47–48. We agree with Patent Owner that Factor 5 favors denial. *Sotera*, Paper 12 at 19.

6. *Fintiv Factor 6: Other Circumstances that Impact the Board’s Exercise of Discretion, Including the Merits*

With respect to Factor 6, Petitioner contends that the Petition “presents compelling evidence of unpatentability.” Pet. 64. On the other hand, Patent Owner advances that “the Petition . . . falls far short of showing ‘compelling merits.’” Prelim. Resp. 48.

Having reviewed all of the parties’ arguments and evidence, we do not find the merits of Petitioner’s claim challenges particularly strong. For example, with respect to Ground 1, Patent Owner raises significant questions concerning Petitioner’s position on claim 1’s recitation of “amplitude estimates” in limitation 1[b] and, accordingly, whether Petitioner would be reasonably likely to prevail on that ground. *See, e.g.*, Pet. 28–34; Prelim. Resp. 33–37.

For example, citing Fuller’s disclosures of “signals,” Petitioner argues that “[a person of ordinary skill in the art] would have understood that each individual signal necessarily includes an amplitude, and that the M individual signals thus correspond to a plurality of individual amplitude

estimates.” Pet. 31 (citing Ex. 1003 ¶ 99). Similarly, citing Fuller’s disclosure of “channel estimates,” Petitioner argues that “[a person of ordinary skill in the art] would have understood that the channel estimates include amplitude estimates, and that the estimated individual signals include at least estimated amplitudes.” *Id.* at 33 (citing Ex. 1003 ¶ 102). In support of these arguments, however, Petitioner cites Dr. Min’s testimony, which does not cite objective supporting evidence and, thus, warrants limited weight. Ex. 1003 ¶¶ 99, 102; *see also* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

With respect to Ground 2, Patent Owner again raises valid questions, for example, regarding whether Petitioner explains in a sufficiently detailed, persuasive manner how it allegedly would have been obvious to combine Frank and Zha in a manner that would have included all of the challenged claim’s limitations, such as limitation 1[c]’s recitation of “amplitude estimates . . . iteratively passed back to said processing modules.” *See, e.g.*, Pet. 44–56; Prelim. Resp. 38–42.

Aside from its assertions regarding the strength of the merits, Petitioner argues that its Petition (1) presents grounds that were not “previously considered by either the Office or the district courts” and (2) “provides the opportunity for narrowing and simplifying the litigations of the district court.” These arguments, like Petitioner’s contention about the strength of its challenges, do not significantly advance Petitioner’s case against discretionary denial. At most, Petitioner’s arguments regarding *Fintiv* Factor 6 show that this factor is neutral

7. *Conclusion on Discretionary Denial*

When considering the *Fintiv* factors, we take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv*, 6. Based on our review, we find that the factors, overall, weigh in favor of exercising discretion to deny institution of the Petition. The factors weighing in favor of exercising discretionary denial include the scheduling of the parallel proceeding’s trial date months prior to the Board’s projected statutory deadline for a final written decision, the significant investment by the parties and the District Court in the parallel proceeding, as well as the identity of the parties in the two proceedings. In our view, these factors outweigh Petitioner’s offer of a stipulation to limit the overlap between the issues raised in the Petition and the parallel proceeding. We, therefore, are persuaded that the interests of the efficiency and integrity of the system would be best served by invoking the authority under 35 U.S.C. § 314(a) to deny institution of the Petition.

III. CONCLUSION

For the above reasons, the evidence of record favors exercising discretion to deny institution of *inter partes* review under 35 U.S.C. § 314(a).

IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), the petition is denied and no trial is instituted.

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