

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC, CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, T-MOBILE USA, INC., AT&T SERVICES, INC., NOKIA OF AMERICA, CORP.,
AND ERICSSON INC.

Petitioners

v.

KT CORPORATION (Patent Owner) and
PEGASUS WIRELESS INNOVATION LLC (Exclusive Licensee)

Case No. IPR2025-00293

Patent 10,009,161

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

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. STIPULATION	3
III. ANALYSIS.....	3
A. Factor 1 – Likelihood of Stay.....	3
B. Factors 2 and 5 – Timing of Trial and Overlap of Parties	4
C. Factor 3 – Investment in Parallel Proceedings.....	6
D. Factor 4 – Sotera Stipulation and Overlap of Issues	7
E. Factor 6 – Other Factors.....	8
1. Xia and 3GPP 36.213 Render the Claimed Set of Code Rates Obvious	9
2. The Grounds Are Supported by Prior Art Evidence.....	12
IV. CONCLUSION.....	16
APPENDIX A - LIST OF EXHIBITS	
CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. §42.24	
CERTIFICATE OF SERVICE	

TABLE OF AUTHORITIES

Cases	Page(s)
<i>BMW of No. Am., LLC v. Northstar Systems LLC</i> , IPR2023-01017, Paper 12 (P.T.A.B. Dec. 8, 2023)	8
<i>Force Mos Tech., Co. v. ASUSTek Computer Inc.</i> , No. 2:22-cv-00460 (E.D. Tex. Jan. 22, 2025)	4
<i>Google LLC v. Mullen Industries LLC</i> , IPR2025-00019, Paper 14 (P.T.A.B. May 12, 2025)	1, 5, 6
<i>HP Inc., et al. v. Neodron Ltd.</i> , IPR2020-00459, Paper 17 (P.T.A.B. Sept. 14, 2020).....	4, 6
<i>IQE PLC v. Cornell Rsch. Found. Inc.</i> , IPR2024-00609, Paper 9 (P.T.A.B. Sept. 13, 2024).....	4
<i>Motorola Sols., Inc. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (P.T.A.B. Mar. 28, 2025).....	2, 6, 7
<i>Multimedia Techs. PTE Ltd. v. LG Elecs. Inc., et al.</i> , 2:22-cv-00494-JRG-RSP, Dkt. 273 (E.D. Tex. Mar. 18, 2025).....	4
<i>Pegasus Wireless Innovation LLC v. Cellco Partnership</i> <i>d/b/a Verizon Wireless et al.</i> , No. 2:23-cv-00640-JRG (E.D. Tex.)	passim
<i>Sotera Wireless, Inc. v. Masimo Corporation</i> , IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020)	passim
<i>Touchstream Techs., Inc. v. Charter Communications Inc.</i> , No. 2:23-cv-00059 (E.D. Tex. Feb. 17, 2025).....	4
<i>Whirlpool Corp. et al. v. Shenzhen Sanlida Elec. Tech. Co.</i> , No. 2:22-cv-00027 (E.D. Tex. Mar. 25, 2025)	4
<i>Yeda Research & Dev. Co. v. Mylan Pharm. Inc.</i> , 906 F.3d 1031 (Fed. Cir. 2018)	13, 15
 Statutes	
35 U.S.C. §311(b)	12, 13

I. INTRODUCTION

Pursuant to the Director's Memorandum issued on March 26, 2025, Petitioners file this opposition to Patent Owner's Request For Discretionary Denial, Paper 12 ("Request"). Patent Owner ("PO") has requested discretionary denial of institution of the Petition for *inter partes* review of the '161 Patent on the basis that "each *Fintiv* factor weighs in favor of the Board exercising its discretion to deny institution" in view of the related district court litigation, *Pegasus Wireless Innovation LLC v. Cellco Partnership d/b/a Verizon Wireless et al.*, No. 2:23-cv-00640-JRG (E.D. Tex.) ("Related Litigation"). Request, 1. However, PO mischaracterizes several material facts while ignoring others in seeking discretionary relief from an otherwise meritorious petition.

Petitioners acknowledge that **one** trial is scheduled in the Related Litigation prior to an expected decision in this proceeding. However, as set forth below, trials against other Petitioners have not been scheduled and one Petitioner, Google, is not a party to any trial. Importantly, recent PTAB case law supports institution in this case notwithstanding the trial schedule in the Related Litigation. *See, e.g., Google LLC v. Mullen Industries LLC*, IPR2025-00019, Paper 14 (P.T.A.B. May 12, 2025). Moreover, PO has recently moved to dismiss four of the patents at issue in the Related Litigation, along with numerous claims of the remaining patents. This fact, coupled with the absence of system prior art contentions and the planned submission

of *Sotera* stipulations with respect to all remaining patents at issue in the Related Litigation, render the PTAB the most judicially efficient forum for adjudicating all prior art invalidity issues.

PO's reliance on *Motorola Sols., Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3 (P.T.A.B. Mar. 28, 2025) is misplaced. *Motorola* is clearly distinguishable given that in the Related Litigation, Defendants have **not** proffered any invalidity contentions based on system prior art (which cannot be raised in an IPR even if they did).

PO's Request also demonstrates the strength of Petitioners' unpatentability challenges because the Request misapprehends and overlooks arguments in the Petition and supporting evidence.

PO also overlooks portions of Petitioners' submitted Expert Declarations (EX1008, EX1010) and wholly misapprehends Petitioners' reasoning for citing certain references as evidence. PO misapprehends Petitioners' arguments with respect to the set of claimed code rates, arguing that Petitioners fail to address what a proposed change from a code rate of 797 to 790 would be within the set. Request, 26-27. PO ignores large portions of Petitioners' arguments presented in the Petition addressing these issues.

This Opposition demonstrates that a proper analysis of the *Fintiv* factors, particularly in view of Petitioners' *Sotera* stipulation and the strength of the Ground

1 set forth in the Petition, dictates that discretionary denial is not warranted and that PO's Request should be denied in the interest of efficiency, fairness, and patent quality.

Accordingly, Petitioners hereby respectfully request that the Board deny PO's Request and grant the Petition to institute *inter partes* review of the '161 Patent.

II. STIPULATION

Petitioners hereby present a *Sotera* stipulation. Petitioners stipulate that if the Board grants the Petition and institutes an *inter partes* review, Petitioners will not pursue in the Related Litigation the specific grounds asserted in the Petition, or any other ground that could have been reasonably raised in an IPR. *See Sotera Wireless, Inc. v. Masimo Corporation*, IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020) (precedential).

III. ANALYSIS

A. Factor 1 – Likelihood of Stay

No party has requested a stay, and the District Court has not indicated whether a stay is likely to be granted. The fact that other IPR petitions – IPR2025-00036 and IPR2025-00037 – have been denied by the Board (Request, at 6) is irrelevant as to this Petition because those other petitions address different patents. Notably, the Request does not cite to any support for the principle that the *Fintiv* analysis for the '161 patent depends on, or can even consider, discretionary denials of institution for other unrelated patents. Therefore, this factor is neutral.

B. Factors 2 and 5 – Timing of Trial and Overlap of Parties

Petitioners comprise multiple entities with different trial dates – or no trial date at all. These factors are interrelated and strongly favor institution. *See HP Inc., et al. v. Neodron Ltd.*, IPR2020-00459, Paper 17 at 36, 38 (P.T.A.B. Sept. 14, 2020).

Petitioner Google LLC is not a party to any trial. Therefore, there is *not* complete overlap of the parties, and at least one Petitioner will *never* have a trial date in the Related Litigation. *IQE PLC v. Cornell Rsch. Found. Inc.*, IPR2024-00609, Paper 9 at 12-13 (P.T.A.B. Sept. 13, 2024).

As for the other Petitioners, only one of the three trials in the parallel District Court case is scheduled. PO points to median-time-to trial statistics to suggest that the scheduled trial date favors denial, but recent cases tell a different story. In 2025, the District Court has significantly delayed multiple scheduled trial dates and has an average of 29 months to trial. *See Whirlpool Corp. et al. v. Shenzhen Sanlida Elec. Tech. Co.*, No. 2:22-cv-00027 (E.D. Tex. Mar. 25, 2025) (1092 days to trial); *Force Mos Tech., Co. v. ASUSTek Computer Inc.*, No. 2:22-cv-00460 (E.D. Tex. Jan. 22, 2025) (802 days to trial); *Touchstream Techs., Inc. v. Charter Communications Inc.*, No. 2:23-cv-00059 (E.D. Tex. Feb. 17, 2025) (746 days to trial). Indeed, trial dates in this district court are often delayed multiple times. *See, e.g., Multimedia Techs. PTE Ltd. v. LG Elecs. Inc., et al.*, 2:22-cv-00494-JRG-RSP, Dkt. 273 (E.D. Tex. Mar. 18, 2025) (noting that “[t]his case has been set for trial five times: November

18, 2024, January 27, 2025, February 7, 2025, March 3, 2025, and March 17, 2025. The parties have also been notified that other cases are preferentially set ahead of them for the April 7, 2025 and April 21, 2025 trial settings.”).

Further, it is unlikely for the cases to be scheduled immediately one after the other given the number of patents and claims at issue. Post-trial motions and other factors, including the Court’s busy docket, will prevent serial scheduling of the trials back-to-back. Consequently, while one case *may* go to trial before a final written decision issues, it is unlikely that all cases will go to trial before such time. Moreover, serial district court trials will require multiple, judicially-inefficient prior art invalidity proceedings of the ’161 patent, which will be avoided by institution of this single PTAB proceeding.

In *Google LLC v. Mullen Industries LLC*, IPR2025-00019, Paper 14 (P.T.A.B. May 12, 2025), the Board granted institution even though that district court trial was scheduled to occur “more than six months” before the projected final written decision date and “the defendant’s invalidity contentions include system prior art.” *Id.* at 10-12. In *Mullen*, while parties had yet to conduct Markman in the parallel district litigation, prior art invalidity based on system art was still at issue, unlike the Related Litigation in the present case. Thus, in light of this fact and the *Sotera* stipulation presented herein, there will not be any overlap or investment whatsoever concerning prior art invalidity between the PTAB and district court if trial is

instituted at the PTAB. The facts here are at least as favorable towards institution as those in *Mullen*.

Accordingly, these factors weigh strongly in favor of institution. *See HP Inc.*, Paper 17 at 36, 38. PO never addressed the significant risk of inconsistent jury verdicts on validity (given that there will be three separate trials), which further favors resolving validity in a single proceeding at the P.T.A.B.

C. Factor 3 – Investment in Parallel Proceedings

Here again, Petitioner Google is not a party in the District Court proceedings and, thus, will not be a party to the validity challenge of the '161 Patent in those proceedings.

As for the other parties, the Director focuses on the status of the District Court proceedings *at the time the POPR was filed*, now that the interim guidelines have been rescinded.¹ *Motorola* at 3. In contrast to the facts of *Motorola*, the parties here had invested little energy into invalidity challenges of the '161 Patent claims and Defendants had and have *not* proffered any invalidity contentions based on system

¹ Petitioners reserve the right to challenge the March 26, 2025 Interim Processes for PTAB Workload Management at least because it is legally invalid as (1) exceeding the Director's authority, (2) arbitrary and capricious, and (3) adopted without notice-and-comment rulemaking.

prior art (which cannot be raised in an IPR even if they did). *Id.*, 4. At the time of filing the POPR, the parties had just completed fact discovery and served opening expert reports, and a claim construction order had not issued. (The Court has still not issued a claim construction order.) The facts here further differ from *Motorola*, as there is a non-defendant petitioner, multiple unscheduled trials, and challenge of unasserted claims did not factor into the Director’s analysis. Therefore, much work is still to be done in the District Court case, and this factor favors institution.

PO argues that “Patent Owner served infringement contentions on Petitioners in district court on March 18, 2024...[y]et, Petitioners delayed until December 31, 2024—over nine months after receiving infringement contentions—to file its Petition challenging the ’161 patent.” Request, 13-14. Petitioners did not delay filing its petition. To the contrary, Petitioners promptly worked together, including with non-party Petitioner Google, to prepare and file this petition in an effort to advance judicial efficiency by avoiding multiple petitions and thereby conserving Board resources.

Accordingly, this factor favors institution or, at the very least, is neutral.

D. Factor 4 – Sotera Stipulation and Overlap of Issues

Because Google is not a party to the parallel litigation, there cannot be any overlap for Google. Moreover, Petitioners present a *Sotera* stipulation. To mitigate any duplication concerns, if this IPR is instituted, Defendants will not pursue in

District Court litigation the specific grounds asserted in this proceeding, or any other ground that was raised or could have been reasonably raised in an IPR. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020) (precedential); *BMW of No. Am., LLC v. Northstar Systems LLC*, IPR2023-01017, Paper 12, at 10 (P.T.A.B. Dec. 8, 2023). As noted above, PO has recently moved to dismiss four of the patents at issue in the Related Litigation, along with numerous claims of the remaining patents. This fact, coupled with the absence of system prior art contentions and the planned submission of *Sotera* stipulations with respect to all remaining patents at issue in the Related Litigation, render the PTAB the most judicially efficient forum for adjudicating all prior art invalidity issues. Therefore, this factor favors institution.

E. Factor 6 – Other Factors

PO's arguments regarding the timing of the multiple petitions challenging patents unrelated to the '161 patent must be rejected. The Board should look no further than the present Petition for purposes of weighing the *Fintiv* factors.

The Petition presents compelling evidence of invalidity. PO challenges the Petition's analysis of the set of claimed code rate values and how Xia in view of 3GPP 36.213 renders the claimed 797 code rate value obvious. As detailed below, both the Xia reference (EX1027) and the 3GPP 36.213 reference (EX1013) teach that the set of claimed code rates including the 797 intervening code rate value would

have been obvious.

PO's assertion makes no sense in light of the express disclosure of the prior art and effectively requires the Board to entirely ignore the evidence.

1. Xia and 3GPP 36.213 Render the Claimed Set of Code Rates Obvious

PO asserts that Petitioners overlook that the claimed 797 code rate is part of a set of claimed code rates, including claimed code rates of 711 and 948. Request, 26-28. PO is wrong. The Petition explains in detail why the code rate value of 797 would have been obvious in the context of the 711 and 948 minimum and maximum code rates disclosed by Xia. *See* Pet., 39-40 (“Xia’s selected endpoints for the new 256QAM CQI entries span the exact same range of code rate values as claimed in the ’161 Patent”). *See also id.*, 41 (“Xia teaches the same threshold 256QAM parameters—i.e., the same number of entries (four) and the same minimum and maximum code rate values (711, 948)”). Petitioners fully recognize the set of claimed code rates by emphasizing that “Xia teaches the same general approach” as the ’161 Patent by teaching the set of claimed code rates as spanning “the *exact same* range of code rate values as claimed in the ’161 Patent.” Pet., 40. Thus, as explained in the Petition, both Xia and the ’161 Patent recognize 711 and 948 as end points, and that strictly constant intervals between the intervening code rate values are not required between the endpoints of 711 and 948. *See* Pet., 40-41; EX1027, 84:18-31

(“approximately” constant intervals); EX1001, 14:3-8 (intervals are “almost the same”).

PO asserts that Petitioners’ argument concerning the ’161 Patent’s technique of using approximately constant intervals amounts to impermissible hindsight. PO is wrong and misapprehends Petitioners’ argument. Pet., 40 (“Xia teaches the same general approach to 256QAM design as the ’161 Patent”). Petitioners explain that Xia discloses *the same technique* of using approximately constant intervals as the ’161 Patent. Thus, Petitioners discuss what “the ’161 Patent teaches . . .” for the purpose of demonstrating that the method for determining code rate values in the ’161 Patent *is the same* as the method disclosed in Xia. This comparison is not impermissible hindsight, but rather a demonstration of the similarity of Xia’s disclosure with the ’161 disclosure.

As explained in the Petition, “Xia teaches the same threshold 256QAM parameters—i.e., the same number of entries (four) and the same minimum and maximum code rate values (711, 948)”. Pet., 41. The 711 and 948 endpoint code rate values are explicitly taught in Xia. Pet., 40, EX1027, 89:3, Table 6-3. As also explained in the Petition, “all that would remain is the non-critical selection of any two intervening values between 711 and 948 that ‘approximate’ constant intervals.” Pet., 41. *See also id.*, 50 (“the two remaining (intervening) code rate values (only one of which is claimed) would necessarily fall within that range.”). As explained,

the evidence demonstrates that the 797 code rate is non-critical, is contemplated by the teaching of using approximately constant spectral efficiency intervals taught by Xia, is within an acceptable tolerance of the disclosed 790 value, is a matter of obvious design choice, and is *prima facie* obvious given the closeness to the prior art code rate values to the claimed value. Pet., 41-47.

PO's argument that Petitioners ignore that the claimed 797 code rate is part of a set of claimed code rates is therefore misplaced. The Petition explains exactly how the disclosed 711 and 948 code rates result in an obvious selection of intervening code rate values including the 797 value. Pet., 43. Not only is the claimed 797 code rate value obvious with the set of code rate values, the claimed 797 code rate value is not critical and can be easily replaced by other "approximate" values (e.g., 790). *See* Pet., 41 ("selection of this particular exemplified value is not critical").

PO also asserts that Petitioners rely on "the incorrect premise that '[t]he '161 Patent does not explain how or why the 797 code rate was chosen for inclusion in its claimed CQI table'". Request, 26-27 (citing Pet. 41; EX1008, ¶151). To challenge Petitioner's assertion that the '161 Patent does not describe how or why the 797 code rate was chosen, PO points to an excerpt in the '161 patent discussing an 'R' code rate value of 797, where "'R' values are determined so that differences of the required SNRs between adjacent CQI indexes are almost the same using required SNRs of FIG. 17 and Equation 2." Request, 26 (citing EX1001, 14:7-11). PO

suggests that how and why 797 was selected relies on differences of the required SNRs between adjacent CQI indexes being almost the same. As explained above, Xia discloses the same methodology of using approximate intervals between CQI values. Pet., 40-41; *see id.*, 39-47. Thus, there is no inventiveness or criticality tied to the 797 code rate value, and the '161 Patent describes the only reasoning for selecting the code rate value as a function of a known process for selecting CQI values: setting equal intervals between CQI entries. Petitioners' reliance on the premise that the '161 Patent does not explain how or why the 797 code rate was chosen is sound. Apart from using a known method for determining intervening CQI values, there is no functional reason to select a code rate value of 797 over any other value within the range of 711 to 948. *See* Pet., 41.

2. The Grounds Are Supported by Prior Art Evidence

PO asserts Petitioners rely on references in violation of §311(b). Request, 2, 28. PO is wrong. The Grounds expressly name prior art patents and printed publications (EX1027, EX1013) which are sufficient to support the bases for unpatentability without reliance on non-prior art documentary evidence. Pet., 8. The non-prior art evidence (EX1028, EX1030) cited in the Petition, while not essential, further demonstrates the obviousness of the Challenged Claims, as explained in the Petition. Petitioners' reliance on EX1028 and EX1030 to demonstrate the level of ordinary skill in the art and how one with ordinary skill in the art would have

understood the prior art is entirely permissible in an IPR. *See Yeda Research & Dev. Co. v. Mylan Pharm. Inc.*, 906 F.3d 1031, 1041 (Fed. Cir. 2018) (“non-prior art evidence of what was known ... ‘can be relied on for their proper supporting roles, e.g., indicating the level of ordinary skill in the art, what certain terms would mean to one with ordinary skill in the art, and how one with ordinary skill in the art would have understood a prior art disclosure.’”). Contrary to PO’s assertions, Section 311(b) does not preclude use of non-prior art evidence. *Id.* (“the Board can rely on evidence other than just prior art. The statute permits IPR petitioners to rely on evidence beyond the asserted prior art.”). As explained in the Petition, EX1028 and EX1030 demonstrate how selection of a 797 code rate value would have been obvious where other code rate values were equally viable and non-critical, and to demonstrate how the 797 code rate was actually selected for inclusion in the 3GPP standard—as an average of multiple proposed and viable code rate values—which is entirely consistent with the teachings of the prior art references named in the Grounds. Pet., 42-43.

PO asserts that Petitioners do not address the prior art status of all documents relied upon, including EX1028 and EX1030. Request, 27. However, PO misses the point. As stated, EX1028 and EX1030 are cited as supporting evidence. Petitioners’ Ground demonstrates why a code rate value of 797 would have been obvious, and EX1028 and EX1030 serve as further evidence to show that the code rate value of

797 was actually non-critical and served no technical viability over any other intervening values within the approximate tolerances taught by the prior art. EX1028 and EX1030 demonstrate that a person having ordinary skill in the art would have been motivated to use equal SINR intervals between CQI entries (as taught in Xia), and that doing so could result in multiple viable code rate values, none of which were critical to the CQI table which the '161 Patent is directed to. Pet., 45-46.

PO asserts that EX1030 is not dated March 21, 2014, referring to the date on the face of the document as “31th March – 4th April 2014.” Request, 27. Petitioners reference the Declaration of Craig Bishop (EX1010) in the Petition to support that EX1030 was publicly available at least as early as March 21, 2014. Pet., 42. EX1010, ¶¶61-63. This is the *same day* as the earliest priority of the '161 Patent. Further, the R1 documents submitted by Petitioner describing general 3GPP meeting minutes for 256QAM were all generated and made publicly accessible around the same timeframe as the earliest priority date. *See* EX1010. PO fails to explain this coincidental timeframe of released R1 documents and the proximity to the earliest priority date.

PO also mischaracterizes Petitioners' expert's statement that EX1030 is “not prior art.” Request, 3. *See* EX1008, ¶162. PO takes the expert's statement out of context, as Petitioners' expert stated “R1-142638 (EX1030), although not prior art, demonstrates that the selected code rate value of 797 had no criticality to the use and

standardization of the CQI table.” EX1008, ¶162. Petitioners’ expert’s statements are entirely consistent with Petitioners’ purpose of citing EX1030 in a supporting role. *Yeda*, 906 F.3d at 1041. PO concludes by asserting Petitioners’ “use of non-prior art exhibits like Ex. 1028 and Ex. 1030 shows that the Petition is not based on ‘prior art consisting of patents or printed publications.’” Request, 3. As explained, PO is incorrect.

Petitioners rely on the prior art to supply a reasonable expectation of success in employing the 797 code rate in Xia’s design, and Petitioner does not need to rely on non-prior art. For example, “(i) the well-understood and predictable nature of code rates used in CQI notification methods” is taught by Xia (EX1027) and informed by 3GPP 36.213 (EX1013), “(ii) the art recognized acceptance of ‘approximate’ constant intervals between adjacent CQI index values”, “(iii) the art recognized ‘design principle’ of equal SINR/efficiency intervals” and “(iv) the disclosed use of the similar code rate of 790” are taught by Xia. Pet., 47. PO’s assertion that Petitioners have failed to show a reasonable expectation of success of demonstrating the presence of the claimed set of code rate is meritless. Request, 28.

IV. CONCLUSION

For the foregoing reasons, the Director should deny PO's request for discretionary denial of institution.

Date: June 2, 2025

Respectfully submitted,

/Patrick C. Keane/

Patrick C. Keane, Esq.

Registration No. 32,858

BUCHANAN INGERSOLL & ROONEY PC

1737 King Street, Suite 500

Alexandria, Virginia 22314

Direct Telephone (703) 838-6522

Main Facsimile (703) 836-2021

patrick.keane@bipc.com

Counsel for Petitioner

APPENDIX A - LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 10,009,161, issued on June 26, 2018 (“the ’161 Patent”)
1008	Declaration of Sumit Roy
1010	Declaration of Craig Bishop
1013	3GPP TS 36.213 v10.4.0 (2011-12) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); Physical channels and modulation (Release 10)
1027	Certified English translation of PCT International Publication WO 2014/194681 to Xia et al.
1028	3GPP TSG RAN WG1 Meeting #77, R1-142638, WF on 256QAM CQI table design, Seoul, Korea 19 th -23 rd May 2014 (“R1-142638”)
1030	3GPP TSG RAN WG1 Meeting #76bis, R1-141366, Shenzhen, China, 31 st March-4 th April, 2014 (“R1-141366”)

CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. §42.24

Pursuant to Acting Director Stewart's March 26, 2025 Memorandum on Interim Processes for PTAB Workload Management, the undersigned certifies that the foregoing Opposition to Patent Owner's Brief Requesting Discretionary Denial of Institution totals 3,618 words, excluding the parts which are exempted by 37 C.F.R. §42.24.

Date: June 2, 2025

/Patrick C. Keane/

Patrick C. Keane, Esq.

Registration No. 32,858

BUCHANAN INGERSOLL & ROONEY PC

1737 King Street, Suite 500

Alexandria, Virginia 22314

Direct Telephone (703) 838-6522

Main Facsimile (703) 836-2021

patrick.keane@bipc.com

Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 2nd day of June, 2025, a true and correct copy of the foregoing **PETITIONERS' OPPOSITION TO PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL** is being served via electronic mail upon counsel for Patent Owner as follows:

Wayne Helge
James Wilson
BUNSOW DE MORY LLP
whelge@bdiplaw.com
jwilson@bdiplaw.com
erobinson@bdiplaw.com

Date: June 2, 2025

/Patrick C. Keane/
Patrick C. Keane, Esq.
Registration No. 32,858
BUCHANAN INGERSOLL & ROONEY PC
1737 King Street, Suite 500
Alexandria, Virginia 22314
Direct Telephone (703) 838-6522
Main Facsimile (703) 836-2021
patrick.keane@bipc.com
Counsel for Petitioner