

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

RESMED CORP.,
Petitioners,

v.

FRACTUS, S.A.,
Patent Owner.

Case No. IPR2026-00191
Patent No. 11,031,677

**BRIEF IN SUPPORT OF PATENT OWNER'S
REQUEST FOR DISCRETIONARY DENIAL**

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EXHIBIT LIST

Exhibit No.	Title
Ex. 2001	Reserved
Ex. 2002	Defendants' Preliminary Invalidity Contentions dated June 18, 2025 in 2:24-cv-01009-JRG-RSP (E.D.Tex.)
Ex. 2003	Invalidity Contentions for U.S. Patent No. 11,031,677 in 2:24-cv-01009-JRG-RSP (E.D.Tex.)
Ex. 2004	Amended Docket Control Order dated April 10, 2025 in 2:24-cv-01009-JRG-RSP (E.D.Tex.)
Ex. 2005-Ex. 2016	Reserved
Ex. 2017	Federal Communications Commission Report and Order FCC 97-421, "In the Matter of Reallocation of Television Channels 60-69, the 746-806 MHz Band," Adopted December 31, 1997, Released January 6, 1998
Ex. 2018	Federal Communications Commission Report and Order FCC 01-364, "In the Matter of Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)," Adopted December 12, 2001, Released January 18, 2002
Ex. 2019	FCC Lower 700 MHz Band Auction #44 Bid Winners (September 18, 2002)
Ex. 2020	Auction 44: Lower 700 MHz Band Fact Sheet (https://www.fcc.gov/auction/44) (last accessed February 25, 2026)

Ex. 2021	FCC Lower 700 MHz Band Auction #49 Bid Winners (June 13, 2003)
Ex. 2022	Auction 49: Lower 700 MHz Band Fact Sheet (https://www.fcc.gov/auction/49) (last accessed February 25, 2026)
Ex. 2023	Reserved
Ex. 2024	3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio transmission and reception; (Release 8) (December 2007)
Ex. 2025-Ex. 2031	Reserved
Ex. 2032	Docket Report in 2:24-cv-01009-JRG-RSP (E.D.Tex.) retrieved March 8, 2026
Ex. 2033	Complaint in <i>Fractus, S.A. v. Resmed Inc.</i> , 3:25-cv-02680-LL-JLB (S.D. Cal.)

TABLE OF AUTHORITIES

Cases

<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Gertite GmbH,</i> IPR201901469, Paper 6 (Feb. 13, 2020) (precedential)	5
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential)	5
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<i>Brita LP v. Int'l Trade Comm'n</i> , 156 F.4th 1326 (Fed. Cir. 2025)	15
<i>Elong Int'l USA Inc. v. Feit Electric Co., Inc.</i> , IPR2025-00258, Paper 16 (June 25, 2025)	5
<i>Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha</i> , IPR2016-01357, Paper 19 (Sept. 6, 2017) (precedential as to § II.B.4.i)	5
<i>Mentor Graphics Corp. v. EVE-USA, Inc.</i> , 851 F.3d 1275 (Fed. Cir. 2017)	15
<i>Rivera v. Int'l Trade Comm'n</i> , 857 F.3d 1315 (Fed. Cir. 2017).....	14, 18

Statutes

35 U.S.C. § 314	1
35 U.S.C. § 316	6

Other Authorities

Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59), 67 Fed. Reg. 5491 (February 6, 2002) 10

Reallocation of TV Channels 60–69, the 746–806 MHz Band, 62 Fed. Reg. 41012 (July 31, 1997) 11

Reallocation of TV Channels 60–69, the 746–806 MHz Band, 63 Fed. Reg. 6669 (February 10, 1998) 12, 13

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47 C.F.R. § 27.2 11, 13

I. INTRODUCTION AND SUMMARY OF ARGUMENT

Patent Owner respectfully requests the Director exercise discretionary denial of institution. Several considerations favor discretionary denial of institution in this IPR.

First, the Director should exercise discretion to deny institution because the jury in *Fractus, S.A. v. Geotab Inc.*, No. 2:24-cv-01008 (E.D. Tex.) and *Fractus, S.A. v. Verizon Connect Inc. et al.*, No. 2:24-cv-01009 (E.D. Tex.) (the “Parallel Litigation”), will reach a final determination on the validity grounds presented in the Petition against U.S. Patent No. 11,031,677 (the “’677 patent”) before any final written decision by the Board in this proceeding. While Petitioner Resmed (“Petitioner”) is not a party to the Parallel Litigation, Petitioner decided to present a “copycat” petition to the one filed in *inter partes* review IPR2025-01026 (the “’1026 proceeding”) by Parallel Litigation defendants. The Petition here presents identical invalidity grounds to those that are being asserted in the Parallel Litigation and the ’1026 proceeding. The Parallel Litigation is extremely advanced: the parties have exchanged invalidity and infringement contentions, the parties have filed claim construction briefs, and the *Markman* hearing is scheduled for March 11, 2026, just two days from the filing of this brief, and well before Petitioner files its response. EX2032. Further, trial is scheduled to take place on September 14, 2026, well in advance of any decision in this proceeding, regardless of whether this proceeding is

joined with the '1026 Proceeding. EX2004. Accordingly, the Parallel Litigation will address the validity of the '677 patent on the exact grounds presented in the Petition, well in advance of any final decision in this proceeding. Therefore, discretionarily denying the present proceeding is appropriate to ensure efficient use of Board resources.

Second, the Petition's patentability challenges are decidedly weak. The Petition in this proceeding is identical to the petition filed in the '1026 proceeding. The Board already determined that the primary prior art grounds in the '1026 proceeding did not meet the threshold showing for institution. *Geotab Inc. v. Fractus*, IPR2025-01026, Paper 21 at 50, 52 (December 3, 2025) ("Institution Decision"). The sole invalidity ground that purportedly met the institution standard was based on an incorrect legal analysis and an erroneous factual conclusion, which Patent Owner explains in detail below. Given the weak invalidity case in the '1026 proceeding, which is identical to the case presented in the Petition here, pursuing those grounds is a waste of Board resources. Accordingly, discretionarily denying the present proceeding is appropriate for this second reason.

Third, instituting this proceeding, whether joined with the '1026 proceeding or not, will not resolve the issues between the Parties. Patent Owner's suit against Petitioner, *Fractus, S.A. v. Resmed Inc. and Resmed Corp.*, 3:25-cv-02680-LL-JLB (S.D. Cal.) ("Petitioner's Litigation"), asserts numerous patents in addition to the

'677 patent. EX2033 at 2. Petitioner has not sought to challenge any of those other patents at the Patent Office. Therefore, institution of the present proceeding cannot and will not resolve the issues between the Parties. Accordingly, Board resources will be efficiently preserved by deferring to the proceeding that will resolve all the issues between the parties – that proceeding is Petitioner's Litigation.

II. FACTUAL BACKGROUND

The '677 Patent issued on June 8, 2021. EX1001 at 1. On December 6, 2024, Patent Owner filed suit against Geotab in the Parallel Litigation alleging infringement of the '677 Patent and four other patents. On that same date, Patent Owner filed suit against Verizon, alleging infringement of the '677 Patent. EX2032 at 1 (entry 1). The cases were consolidated by order of the Court on February 18, 2025, the Parallel Litigation referred to above. EX2032 at 8 (entry 17). The Parallel Litigation is continuing to proceed in accordance with the Court's Docket Control Order with trial scheduled for September 14, 2026. EX2004 at 1. On June 18, 2025, the Parallel Litigation defendants served their joint invalidity contentions, which include, *inter alia*, the same invalidity contentions as those raised in this proceeding. EX2002 at pp. 50-71; EX2003 at D-07.

Between April and June of 2025, Parallel Litigation defendants Geotab filed four *inter partes* reviews and one post-grant review against the patents being asserted in the Parallel Litigation. Two of the IPR proceedings were discretionarily denied,

and the PGR was denied on the merits. *Geotab Inc. v. Fractus*, IPR2025-00928, Paper 11 (September 12, 2025); *Geotab Inc. v. Fractus*, PGR2025-00056, Paper 19 (December 3, 2025). Two of the IPRs were instituted, one of which sought review of the '677 patent in the '1026 proceeding. *Geotab Inc. v. Fractus*, IPR2025-01026, Paper 21 (December 3, 2025); *Geotab Inc. v. Fractus*, IPR2025-01027, Paper 21 (December 3, 2025)..

On October 9, 2025, Patent Owner filed suit against Petitioner in Petitioner's Litigation, asserting four patents in addition to the '677 Patent. EX2033 at 2. On January 2, 2026, Petitioner filed the Petition in this proceeding as a copycat petition to the '1026 proceeding. Included with the Petition was a Motion for Joinder (Paper 3) seeking to have the present proceeding joined with the '1026 proceeding. On February 2, 2026, Patent Owner filed an Opposition to the Motion for Joinder (Paper 7), and on March 2, 2026, Petitioner filed a Reply to the Opposition (Paper 8).

III. LEGAL STANDARD

As indicated in the March 26, 2025 Memorandum by the Director that addresses "Interim Processes for PTAB Workload Management" ("Director Memo"):

[C]onsistent with the discretionary considerations enumerated in existing Board precedent (including *Fintiv*, *General Plastic*, and *Advanced Bionics**) and the Consolidated Trial Practice Guide (Nov.

2019), the parties are permitted to address all relevant considerations, which may include:

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

Director Memo at 2-3 (*citing, Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential); *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (Sept. 6, 2017) (precedential as to § II.B.4.i); *Advanced Bionics, LLC v. MED-EL Elektromedizinische Gertite GmbH*, IPR201901469, Paper 6 (Feb. 13, 2020) (precedential)).

In proceedings where joinder is sought, discretionary considerations are first reviewed for a petition as if joinder were not sought and then reviewed as if joinder were to be granted. *Elong Int'l USA Inc. v. Feit Electric Co., Inc.*, IPR2025-00258, Paper 16 (June 25, 2025)(Designated Precedential January 9, 2026).

IV. DISCRETIONARY DENIAL IS APPROPRIATE

A. A Final Written Decision in this Proceeding will come After a Decision in the Parallel Litigation

Trial in the Parallel Litigation is set for September 14, 2026, whereas, a final written decision in this proceeding, if joined with the '1026 proceeding, will definitely come later – oral hearing in the '1026 proceeding is scheduled for September 2, 2026, and a final written decision is not due until December 3, 2026. *Geotab Inc. v. Fractus*, IPR2025-01026, Paper 21 (December 3, 2025). If this proceeding is not joined with the '1026 proceeding, its final written decision will come even later, not being due until well into 2027. 35 U.S.C. § 316(a)(11). Accordingly, regardless of joinder, the Parallel Litigation, which is addressing the same invalidity grounds evaluated in the present and '1026 proceedings, will conclude first. Therefore, instituting the present proceeding would be a waste of Board resources and the Petition should be discretionarily denied.

B. The Patentability Challenge is Weak

As discussed above, the Petition in the present proceeding is a copycat petition of the one filed in the '1026 proceeding. The grounds in both petitions are decidedly weak, favoring discretionary denial of the Petition.

Specifically, the petitions present the following three grounds of rejection:

- Ground 1 – Claims 1-9 under 35 U.S.C. § 103 over U.S. Pre-Grant Publication No. 2007/0200773 to Dou (“Dou”) in view of Pascal Ciais et al., Design of an Internal QuadBand Antenna for Mobile Phones, Vol. 14, No. 4 IEEE Microwave and Wireless Components Letters 148–50, (April 2004) (“Ciasis-Quadband”);
- Ground 2 – Claims 1-20 under 35 U.S.C. § 103 over Dou in view of Ciasis-Quadband, in further view of Hisamatsu Nakano et al., An Inverted FL Antenna for Dual-Frequency Operation, Vol. 53, No. 8 IEEE Transactions on Antennas and Propagation 2417–21 (August 2005) (“Nakano”); and
- Ground 3 – Claims 1-5 and 12-20 under 35 U.S.C. §§ 102/103 over U.S. Pre-Grant Publication No. US 2008/0018543 to Baliarda et al. (“Baliarda”).

The Institution Decision, Paper 20 in the ’1026 proceeding determined that Grounds 1 and 2 failed to meet the institution standard of a reasonable likelihood that any claim of the ’677 Patent was unpatentable. Institution Decision at 50, 52. This determination was reached because the combinations proposed in the petitions were counter to the knowledge of the POSITA and Dou’s design requirements. *See Id.* at 48. Accordingly, there was no motivation for the POSITA to combine the cited references as proposed in Grounds 1 and 2. *Id.* at 50, 52. Therefore, the Board has already determined that Grounds 1 and 2 in the Petition are weak, favoring discretionary denial.

While the Institution Decision did institute trial based on Ground 3 (*id.* at 70), this determination was based on an erroneous legal analysis and an erroneous factual conclusion. Applying the correct legal analysis to the correct factual background shows that Ground 3 is, in fact, *weaker* than Grounds 1 and 2.

Baliarda, the sole reference cited in Ground 3, is the pre-grant publication of U.S. Application No. 11/614,429 (the “’429 Application”). The ’429 Application is contained within the ’677 patent's priority chain. EX1001 at 1. The Parties in this proceeding and the ’1026 proceeding agree that the specifications of the ’429 Application and Baliarda are materially identical to that of the ’677 Patent. Petition at 96-97. The petitions argue that the ’677 patent is not entitled to its priority claim, and therefore, Baliarda is prior art to the ’677 patent, and the Board agreed. Institution Decision at 66. Specifically, the Board and the petitions argued that the full scope of “4G communication standard” as recited in the claims of the ’677 patent was not fully supported by the disclosure of the ’429 application because:

Petitioner demonstrates a reasonable likelihood that as of the ’429 application’s December 21, 2006, filing date, the ’429 application did not “reasonably convey[] to those skilled in the art that the inventor had possession” of “an antenna configured to send or receive *signals in the 698-806 MHz spectrum*,” including LTE band 12 that Patent Owner relies on in the Geotab litigation, for “communication with any ‘4G communication standard’ *because those frequencies were not*

usable for any mobile device communications at the time of filing.”

Id. at 65-66 (emphases added).

In other words, the petitions and the Institution Decision looked to one specific frequency spectrum, the 698-806 MHz spectrum, and determined that the ’429 application did not reasonably convey to the POSITA that the inventors were in possession of an antenna configured to operate in the 698-806 MHz spectrum.

As explained in detail below, the petitions and Institution Decision erroneously looked for explicit support for a particular species of an antenna, an antenna configured to operate in the 698-806 MHz spectrum, instead of considering the ample support for the genus of antennas configured to operate in frequencies associated with 4G communications standards. *See ABS Glob., Inc. v. Inguran, LLC*, 914 F.3d 1054, 1075 (7th Cir. 2019). Further, the POSITA would have understood from the ’429 application’s disclosure that an antenna configured to operate at frequencies associated with 4G communications standards included the 698-806 MHz spectrum. Accordingly, the ’677 Patent is entitled to its priority claim and Baliarda is not prior art.

- i. *The POSITA would have Understood as of the ’677 Patent’s Earliest Priority Date that an Antenna Configured to Operate at Frequencies Associated with “4G Communication Standards” Included the 698-806 MHz Spectrum*

Years prior to the filing of the ’429 Application, the Federal Communications

Commission (“FCC”) ordered that frequencies within the 698-806 MHz spectrum range, comprising the Lower 700 MHz Band (698-746 MHz) and the Upper 700 MHz band (746-806 MHz), be allocated for “uses ranging from the implementation of next generation applications and extensions of existing mobile and fixed networks to the implementation of various innovative stand-alone technologies.” EX2018 at ¶¶ 70; *see also* Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59), 67 Fed. Reg. 5491, 5496 (February 6, 2002). The FCC specifically noted “that the propagation characteristics of the Lower 700 MHz Band [were] ideal for two-way mobile communications.” EX2018 at ¶¶ 8; *see also* 67 Fed. Reg. 5491, 5492. As 4G communication standards were “next generation applications and extensions of existing mobile ... networks,” the POSITA would have readily understood from the ’429 Application’s disclosure that frequencies associated with 4G communication standards included the 698-806 MHz spectrum.

a. Prior to 2006, the POSITA would have understood that the Upper 700 MHz Band (746-806 MHz) was associated with wireless communication services

In July of 1997, the FCC issued a Notice of Proposed Rulemaking for the reallocation of TV channels 60-69, corresponding to the Upper 700 MHz Band. This reallocation was intended to expand the capacity of cellular services. Reallocation of TV Channels 60–69, the 746–806 MHz Band, 62 Fed. Reg. 41012-41015 (July 31, 1997). In January of 1998, the FCC ordered that the Upper 700 MHz Band was

going to be allocated to commercial services via competitive bidding. EX2017 at 22960-61; *see also* Reallocation of TV Channels 60–69, the 746–806 MHz Band, 63 Fed. Reg. 6669 (February 10, 1998). As indicated in the order, “[t]his spectrum is located near spectrum now used for cellular telephone and other land mobile services, and it could be used to expand the capacities of these services.” EX2017 at 22960-61. Reproduced below are details of a chart from the FCC order illustrating the allocation of the Upper 700 MHz Band.

United States table		FCC use designators	
Government	Non-Government	Rule part(s)	Special use frequencies
Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
614 - 746	614 - 746 BROADCASTING NG128 NG149	RADIO BROADCAST (TV) (73) Auxiliary Broadcasting (74)	
746 - 764	746 - 764 FIXED MOBILE BROADCASTING NG128 NG159	PRIVATE LAND MOBILE (90) RADIO BROADCAST (TV) (73) WIRELESS COMMUNICATIONS (27) Auxiliary Broadcasting (74)	
764-776	764-776 FIXED MOBILE NG128 NG158 NG159	PRIVATE LAND MOBILE (90) Auxiliary Broadcasting (74)	
776-790	776-790 FIXED MOBILE BROADCASTING NG128 NG159	PRIVATE LAND MOBILE (90) RADIO BROADCAST (TV) (73) WIRELESS COMMUNICATIONS (27) Auxiliary Broadcasting (74)	
790-794	790-794 FIXED MOBILE BROADCASTING NG128 NG159	PRIVATE LAND MOBILE (90) RADIO BROADCAST (TV) (73) WIRELESS COMMUNICATIONS (27) Auxiliary Broadcasting (74)	

United States table		FCC use designators	
Government	Non-Government	Rule part(s)	Special use frequencies
Allocation MHz (4)	Allocation MHz (5)	(6)	(7)
794-806	794-806 FIXED MOBILE NG128 NG158 NG159	PRIVATE LAND MOBILE (90) Auxiliary Broadcasting (74)	

Id. at 22977-78 (annotated) *see also* 63 Fed. Reg. 6674-75.

As indicated by “Wireless Communications (27)” included in the “FCC use designators” column of the charts, bands within the Upper 700 MHz Band were being allocated to services subject to FCC rule 27, which covers wireless communications services. *See* 47 C.F.R. § 27.2. Accordingly, the POSITA would

have understood that the Upper 700 MHz Band was going to be used for expanded cellular services as of 1998, *almost a decade prior to the earliest priority date in the '677 Patent's priority claim.*

- b. *Prior to 2006, the POSITA would have understood that the Lower 700 MHz Band (746-806 MHz) was going to be associated with wireless communication services*

In January of 2002, in response to “tremendous growth in the new wireless services and demand for spectrum,” the FCC ordered that the Lower 700 MHz Band would also be reallocated for wireless communications after the DTV transition. EX2018 at ¶ 8; *see also* 67 Fed. Reg. 5491-5513. The reallocated spectrum would:

[A]llow the provision of services to the public that could include mobile and other digital new broadcast operations, fixed and *mobile wireless commercial services (including FDD- and TDD-based services)*, as well as fixed and mobile wireless uses for private, internal radio needs. The record in this proceeding demonstrates demand for expanded wireless services in the Lower 700 MHz Band, particularly in non-urban areas, for uses ranging from *the implementation of next generation applications and extensions of existing mobile and fixed networks to the implementation of various innovative stand-alone technologies.*

EX2018 at ¶ 70 (emphasis added); *see also* 67 Fed. Reg. 5596 (February 6, 2002).

As understood by the POSITA, 4G, LTE and 3G cellular networks utilize Time Division Duplex and Frequency Division Duplexing technologies, *i.e.*, they

are FDD- and TDD-based services. *See, e.g.*, EX2024 at 7. Accordingly, the intent of this allocation was to provide spectrum allocation for advanced cellular communication services, such as 4G, LTE and 3G cellular services. Reproduced below is a detail of a chart from the FCC order illustrating the allocation of the Lower 700 MHz Band.

49 MHz (UHF)		Page 37
United States Table		FCC Rule Part(s)
Federal Government	Non-Federal Government	
470-608	470-512 BROADCASTING NG128 NG149 FIXED NG127 LAND MOBILE NG66 NG114	Public Mobile (22) Broadcast Radio (TV) (73) Auxiliary Broadcasting (74) Private Land Mobile (90)
	512-608 BROADCASTING NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
608-614 RADIO ASTRONOMY US74 LAND MOBILE US350		Personal (95)
US246 614-890	614-698 BROADCASTING NG128 NG149	Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
	698-746 BROADCASTING NG128 FIXED MOBILE	Wireless Communications (27) Broadcast Radio (TV) (73) Auxiliary Broadcasting (74)
	NG159	

EX2018 at Appendix B (annotated); see also 67 Fed. Reg. 5509.

As indicated by “Wireless Communications (27)” included in the “FCC use designators” column of the charts, bands within the Lower 700 MHz Band were being allocated to services subject to FCC rule 27, which covers wireless communications services. *See* 47 C.F.R. § 27.2. Further, portions of the Lower 700 MHz Band were auctioned off in the Fall of 2002 with winning bids going to wireless communications companies. EX2019. Accordingly, as of the Fall of 2002, it would have been well understood by the POSITA that the Lower 700 MHz Band was going

to be used for wireless communications, and communications using technologies associated with 4G, LTE and 3G cellular networks.

c. The Petitions and Institution Decision are Wrong to Assert that the '429 Application did not Convey Possession of the 698-806 MHz Spectrum

As indicated through the discussion above, the petitions and Institution Decision are simply factually wrong to state that “[the 698-806 MHz] frequencies were not usable for any mobile device communications at the time of filing.” Institution Decision at 66. As explained above, the POSITA would have readily understood that the 698-806 MHz spectrum had been allocated to mobile device communications as of the filing of the priority applications for the '677 patent. In fact, licenses had been auctioned to mobile communications operators for use at that time. EX2019. This knowledge included in the correct written description analysis eliminates Baliarda as prior art to the '677 patent. *See Rivera v. Int'l Trade Comm'n*, 857 F.3d 1315, 1322 (Fed. Cir. 2017) (“The knowledge of ordinary artisans may be used to inform what is actually in the specification.”).

ii. The Institution Decision erred in its legal analysis

The petitions and Institution Decision argue that “the '429 application did not ‘reasonably convey[] to those skilled in the art that the inventor had possession’ of ‘***an antenna configured to send or receive signals in the 698-806 MHz spectrum,***’ ***including LTE band 12.***” Institution Decision at 65 (emphasis added). While this

conclusion is factually incorrect as explained above, this legal analysis was also in error. The correct written description analysis determines whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession *of the claimed subject matter* as of the filing date. *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1296 (Fed. Cir. 2017). The petitions and Institution Decision should have analyzed whether the '429 application reasonably conveyed to those skilled in the art that the inventors had possession of what is recited in the claims: an antenna “configured to support ... [a frequency band] being associated with a 4G communication standard.” The '429 Application clearly conveyed to the skilled artisan that the inventors were in possession of such an antenna.

A genus can be sufficiently disclosed by “either a representative number of species falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can visualize or recognize the members of the genus.” *Brita LP v. Int'l Trade Comm'n*, 156 F.4th 1326, 1335 (Fed. Cir. 2025). In fact, in many instances, disclosure of just a *single* species is sufficient to provide written description support for a claim directed to a genus where the field is predictable and the person skilled in the art would readily discern that other members of the genus would perform similarly. *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1125 (Fed. Cir. 2004).

The petitions and Institution Decision erred because, instead of looking for support for “4G communication standard” in the ’429 Application, of which there is plenty, the analysis looked for explicit support for a specific species or embodiment of the claimed invention. *E.g.*, Institution Decision at 67 (“[T]hose disclosures do not show possession of LTE band 12 with 698-716 MHz for uplink and 728-746 MHz for downlink.”). This is not the correct analysis:

[T]he specification need not feature a written description of every specific variant within the scope of the claim. Indeed, it would make little sense for a written description requirement explicitly to include every possible iteration of the broader invention. To do so would encourage patentholders to write out potentially infinite possibilities.

ABS Glob., Inc. v. Inguran, LLC, 914 F.3d 1054, 1075 (7th Cir. 2019).

Because the petitions and Institution Decision incorrectly sought disclosure of a specific embodiment of the claimed invention, instead of looking to the clear support for the invention as claimed, the Panel incorrectly determined that the ’429 Application failed to provide written description support for independent claims 1 and 12.

iii. *The Correct Legal Analysis Shows the ’677 Patent is Entitled to its Priority Claim*

Under the correct analysis, the claims of the ’677 Patent are fully supported by the ’429 Application, entitling the ’677 Patent to the ’429 Application’s priority

date, and eliminating Baliarda as prior art.

A genus (*e.g.*, “4G communication standards”) can be sufficiently disclosed by a representative number of species falling within the scope of the genus (*e.g.*, a representative number of such standards) or structural features common to the members of the genus so that one of skill in the art can visualize or recognize the members of the genus (*e.g.*, a representative number of frequencies associated with 4G communication standards). *See Brita LP*, 156 F.4th at 1335. In fact, in many instances, disclosure of just a single species is sufficient to provide written description support for a claim directed to a genus where the field is predictable and the person skilled in the art would readily discern that other members of the genus would perform similarly. *Bilstad*, 386 F.3d at 1125. The ’429 Application clearly provides such disclosure through multiple representative species (“HSDPA, WiBro, WiFi, WiMax, UWB, or other high-speed wireless standards” and their associated frequencies) and by describing structural features of the genus in the form of multiple example frequencies at which the antennas operate, as well as their highspeed operation. EX1001 at 25:1-12.

The Parties, in the present proceeding and the ’1026 proceeding, agree that multiple examples of “4G Communication standards” and their associated frequencies were disclosed in the ’429 Application. In fact, Petitioner describes these examples in the Petition:

Thus, “4G communication standard” is met by a “wireless standard” for “4G services” and “antenna... configured to... receive signals from a 4G communication standard” (or “receive signals employing a 4G communication standard”) is met by an antenna that is operable in a frequency range used by a “4G service,” where the “i.e.” signal means that the patent defines a “4G service” as “comprising 3G and other advanced services such as for instance HSDPA, WiBro, WiFi, WiMAX, UWB or other high-speed wireless standards[.]

Petition at 29-30.

In other words, the Parties agree that the ’429 Application disclosed multiple species of the genus “4G communication standard.” As indicated in the above-quoted language, the ’677 Patent explicitly supports the 1900-2170 MHz, 810-960 MHz, 1710-1990 MHz, and 2-11 GHz (including some of its subregions such as 3-10 GHz, 2.4-2.5 GHz, and 5-6 GHz) frequency bands.

Further, the knowledge of the POSITA shows that these disclosed examples would indicate to the POSITA that the inventors were in possession of the 698-806 MHz spectrum. *See Rivera*, 857 F.3d at 1322 (“The knowledge of ordinary artisans may be used to inform what is actually in the specification.”). As discussed above, the Upper and Lower 700 MHz Bands were well understood by the POSITA as being associated with advanced cellular services no later than the Fall of 2002, at which point licenses were granted to wireless communications providers in these frequency

bands. EX2020, EX2021, EX2022. In fact, the FCC specifically identified these bands as being appropriate to expand the capacity of cellular services and for the implementation of next generation applications and extensions of existing mobile technologies, including technologies associated with 4G, LTE and 3G cellular networks. 62 Fed. Reg. 41012-41015 (July 31, 1997); EX2018 at ¶ 70; *see also* 67 Fed. Reg. 5596. Accordingly, where the '677 Patent refers to "additional frequency bands corresponding to said 4G standards," it is clear that this passage would have been understood by the POSITA as including the 698-806 MHz spectrum as these are the specific frequency bands that the FCC allocated for the purpose of implementing future cellular networks and technologies.

Accordingly, the '677 Patent would have reasonably conveyed to the POSITA that the inventors were in possession of "a first antenna within the wireless device and configured to support at least three frequency bands ... at least one of the three frequency bands being associated with a 4G communication standard," in which the "at least one of the three frequency bands being associated with a 4G communication standard" operates in *at least* the 1900-2170 MHz, 810-960 MHz, 1710-1990 MHz, 2-11 GHz, **and 698-806 MHz** frequency bands. In other words, the disclosure of the '429 Application reasonably conveyed to the POSITA that the inventors were in possession of the *entire scope* of the claims of the '677 Patent. The '677 Patent is thus entitled to its earliest priority date.

Because the '677 Patent is entitled to its priority date, Baliarda is ***not*** prior art to the '677 Patent, and, therefore, Ground 3 is, in fact, as weak as an invalidity ground can be: it fails to present any prior art whatsoever. Given the weakness of all three grounds in the Petition, this proceeding should be discretionarily denied.

C. This Proceeding will not Resolve the Issues between the Parties

Four additional patents are being asserted against Petitioner in Petitioner's Litigation. EX2033 at 2. Accordingly, regardless of the outcome in this case, Petitioner's Litigation will proceed with respect to those other four patents. Given litigation will continue between the parties regardless of the outcome in this proceeding, Patent Owner submits that the more efficient approach is to rely on one proceeding that will resolve all issues between the parties. The only proceeding that can do that is Petitioner's Litigation. Accordingly, discretionary denial of the present proceeding is appropriate.

V. CONCLUSION

Appropriate analysis under the framework described in the Director Memo and based on the evidence of record favors exercising discretion to deny institution of the Petition, regardless of whether joinder is being sought.

Dated: March 9, 2026

Respectfully submitted,
/Mark J. DeBoy/
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CERTIFICATE OF SERVICE

The undersigned certifies that pursuant to 37 C.F.R. § 42.6(e), a copy of the foregoing **BRIEF IN SUPPORT OF PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL** and accompanying **EXHIBITS** were served via email (as previously consented to by counsel) on March 9, 2026 to lead and backup counsel of record for Petitioners as follows:

PH-Resmed-Fractus@paulhastings.com

Dated: March 9, 2026

/Mark J. DeBoy/

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