

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GEOTAB INC. AND GEOTAB USA, INC.,
Petitioners,

v.

FRACTUS, S.A.
Patent Owner.

Case No. IPR2025-01026
Patent No. 11,031,677

**PETITIONERS' AUTHORIZED RESPONSE TO
PATENT OWNER'S REQUEST FOR DIRECTOR REVIEW**

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The Board correctly granted institution. Paper 20 (“DI”). The Board reviewed the Petition (Paper 3), POPR (Paper 12), Reply (Paper 15), and Sur-reply (Paper 17) and properly determined that the information therein showed a reasonable likelihood that claims 1-5 and 12-20 are unpatentable—more than satisfying the institution requirements under 35 U.S.C. §314(a). DI, 2, 53-70. The Patent Owner (“PO”) Request for Director Review (Paper 23, “Request”) does not show any error in the Board’s analysis, and its new discretionary denial arguments are baseless. The Request should be denied.

There is no dispute that the Petition’s anticipation ground shows Baliarda-543 (EX1040) meets every limitation in claims 1-5 and 12-20. DI, 70; Pet., 89-100; POPR, 2-3, 25-31. The *only dispute* concerns whether Baliarda-543 is prior art to those claims. The Board correctly determined that it is. DI, 63.

Unable to refute the correct legal analysis, PO resorts to obfuscation that misrepresents the facts and law. The Request recycles the failed priority arguments from the POPR. The Board already considered and properly rejected PO’s priority arguments. DI, 54-68. Nothing in the Request identifies any error in the Board’s priority analysis or provides any reason to reach a different conclusion than the Board’s finding that Baliarda-543 is prior art to claims 1-5 and 12-20. *Infra* §I.

As explained *infra* §II, PO’s new discretionary denial arguments are unsupported and should be denied.

I. THERE IS NO REASONABLE DISPUTE THAT BALIARDA-543 IS PRIOR ART TO CLAIMS 1-5 AND 12-20.

A. The Board's Priority Analysis Is Correct.

1. Baliarda-543 is prior art to any claim not entitled to a December 21, 2006 filing date.

Fractus filed the application that issued as the '677 patent on **March 27, 2020**. EX1001, code(22). The '677 patent relates through a series of continuations to a first non-provisional application (Ser. No. 11/614,429) filed **December 21, 2006**. *Id.*, code(63). The '429 application published (with a materially identical specification) as Baliarda-543 in **2008**. EX1040, code(21), (22), (43); DI, 53; POPR, 25-26; Request, 1.

There is no dispute that Baliarda-543 is prior art to any '677 patent claim that is not entitled to the December 21, 2006 filing date of the '429 application because the next non-provisional application in the priority chain was not filed until **2014**—more than a year after Baliarda-543 published in 2008. EX1001, code(63); DI, 57; Pet., 97.

2. No '677 patent claim is entitled to a December 21, 2006 filing date unless the '429 application provides written description supporting the full scope of that claim.

The Board correctly applied the law that in order for any of claims 1-5 or 12-20 to be entitled to the December 21, 2006 filing date of the '429 application, the four corners of the '429 application must provide written description supporting that claim. 35 U.S.C. §120; *Arthrex, Inc. v. Smith & Nephew, Inc.*, 35 F.4th 1328, 1343-

1344 (Fed. Cir. 2022); DI, 54-55 (discussing priority analysis, citing *Arthrex* and 35 U.S.C. §120 and collecting cases), 55-56 (discussing written description analysis); Pet., 90-91 (collecting cases). Written description requires that the '429 application reasonably conveyed to a POSA that the inventor had possession of the claimed subject matter on December 21, 2006 (the '429 application's filing date). *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

The Board correctly applied the law that the priority document's written description must support the *full scope* of each claim, i.e., that the written description shows "possession of the invention as broadly claimed" including "the claimed invention as interpreted to encompass an allegedly infringing product." DI, 65; *id.*, 56 (collecting cases, citations omitted); Pet., 90-91 (collecting cases); *Arthrex*, 35 F.4th at 1343-1344 (affirming Board finding no written description supporting the full scope of "*first member including an eyelet*" where priority document failed to describe a flexible eyelet).

3. There is no dispute that the full scope of claims 1-5 and 12-20 includes an antenna configured to use LTE Band 12.

Claims 1-5 and 12-20 require an "*antenna system comprising*" an "*antenna... configured to support... at least one... frequency band[]... associated with a 4G communication standard*" (Limitations [1.a], [1.c]-[1.d]) and an "*antenna system comprising*" an "*antenna... configured to transmit and receive signals from a 4G communication standard*" (Limitations [12.a], [12.g]) (collectively "4G

limitations”).¹ There is **no dispute** about the scope of this claim language.

The Board correctly found that the 4G limitations **include** an antenna configured to use—i.e., “*support*” and “*transmit and receive signals from*”—LTE Band 12. DI, 63-65. There is **no dispute** that: (1) a “*4G communication standard*” includes LTE and (2) a “*frequency band associated with a 4G communication standard*” includes the frequency bands used by LTE. DI, 63-65; Pet., 28-31, 91; EX1024 (PO’s complaint in Geotab litigation), ¶43(b); POPR, 16-17; Request, 11 (“*4G communication standard*” includes “LTE technologies”).

There is no dispute that frequency bands associated with LTE include **LTE Band 12**. DI, 57-59, 63-65; Pet., 28-31, 91-93; EX1024, ¶43(b); POPR, 2-3, 13-17, 25-31. In the parallel Geotab litigation **PO specifically alleges** that the 4G limitations in claim 1 are met by (and therefore takes the position that the claim scope encompasses) an antenna configured to use **LTE Band 12**. DI, 58-59, 64-67; EX1024 (PO’s complaint), ¶43(b)); Pet., 28, 30-31, 91-93.

There is no dispute that **LTE Band 12** uses 698-716 MHz for uplink and 728-746 MHz for downlink, i.e., **LTE Band 12** uses frequencies within the 698-806 MHz spectrum. DI, 58-59, 64-65; Pet., 92-93; EX1024 (PO’s Complaint), ¶43(b).

¹ Unless otherwise specified all emphasis is added. The Petition Appendix A provides a claim list. Pet., 103-107.

Thus, as the Board correctly determined, *there is no dispute* that the full scope of the 4G limitations includes an antenna configured to use/support **LTE Band 12**. DI, 64-65. That means there is no dispute that the full scope of the claims encompasses antennas configured to use frequency bands, defined within the 698-806 MHz spectrum, for wireless communications using a “4G communication standard.”

4. Claims 1-5 and 12-20 are not entitled to a December 21, 2006 filing date because the '429 application has no written description of an antenna configured to use LTE Band 12.

None of the relevant written description facts are disputed.

There is no dispute that on December 21, 2006 the frequency range 698-806 MHz (i.e., including the frequencies later assigned to LTE Band 12) was *not available* for—and *could not be used with*—4G communication standards (or any wireless communication) because that spectrum was allocated to television and “occupied by television broadcasters in TV Channels 52-69.” DI, 65-66; Pet., 92-94, 96-97.

The '429 application states that “the integration of *an antenna system* into the MWFD 100 is *further complicated by the presence* in the MWFD 100 of *additional antennas...* for the *reception of... TV.*” Baliarda-543, [0096]; DI, 60, 65-68; Pet., 96-97. There is thus no dispute that the '429 application expressly distinguishes *antennas configured for TV reception*—like an antenna receiving TV signals in

frequency bands within 698-806 MHz—from the antennas of the “*antenna system*” in the 4G limitations.

The Board correctly found that a POSA reading the ’429 application on December 21, 2006 would have concluded that the applicants did not possess the idea of an antenna system comprising “an antenna configured to send or receive signals in the 698-806 MHz spectrum”—including frequencies that years later were allocated to LTE Band 12—for communication with any “4G communication standard” because frequencies in the 698-806 MHz spectrum were not available for any wireless communications (let alone “*associated with a 4G communication standard*”) on December 21, 2006. DI, 65-66; *see also id.*, 63-68; Pet., 91-97.

Since the ’429 application does not provide a written description supporting the full scope of claims 1-5 or 12-20, none of those claims are entitled to a priority date of December 21, 2006. DI, 66. Thus, Board correctly determined that Baliarda-543 is prior art to claims 1-5 and 12-20. DI, 63, 66.

B. The Request’s Priority Arguments Are Obfuscation That Repeat POPR Arguments the Board Properly Rejected at Institution.

PO has no answer for the Board’s priority analysis. Unable to refute the correct legal analysis, PO resorts to obfuscation that misrepresents the facts and law.

1. The Board correctly determined that the '429 application does not describe an antenna system comprising an antenna configured to use frequency bands within 698-806 MHz—and specifically LTE Band 12—for 4G communication.

PO's argument that the Board's priority analysis erred by "focusing on a specific embodiment instead of the claim language" and performed "the wrong analysis" is baseless. Request, 3-9. The Board correctly determined that the full scope of claims 1-5 and 12-20 encompasses an antenna configured to send or receive signals in the 698-806 MHz spectrum including an antenna using LTE Band 12. DI, 63-65; *supra* §I.A.3. ***PO took this position on claim scope in the Geotab litigation.*** *Supra* §I.A.3. PO's argument that Board's priority analysis erred by evaluating the '429 application for written description supporting the undisputed full claim scope because it is somehow not "**the claimed subject matter**" (Request, 5 (emphasis original)) is baseless obfuscation that misrepresents the undisputed claim scope and is inconsistent with PO's own litigation arguments. *Id.*; DI, 66.

PO's argument that the Board's priority analysis erred because the '429 application describes "multiple species" of a "4G communication standard" genus (Request, 5-8 (citing POPR, 14-15)) is more misdirection. The Board properly rejected that argument at institution. DI, 67-68 (PO's reliance on other disclosures fails because "those disclosures do not show possession of LTE Band 12 with 698-716 MHz for uplink and 728-746 MHz for downlink.").

It ***does not matter*** how many "species" of a "4G communication standard"

PO contends the '429 application disclosed because the relevant feature common to each alleged example is that—unlike LTE Band 12 (as it was defined years later)—each alleged example concerns a frequency band in frequency ranges *that were available* for “4G” communication on December 21, 2006. *E.g.*, Request, 6 (quoting POPR at 14-15 listing “examples of the claimed ‘frequency bands being associated with a 4G communication standard’”); *id.*, 6-8. Those alleged disclosures do not describe common features or sufficient examples to identify a “genus” that includes an antenna configured to use LTE Band 12 because *it is undisputed* that *on December 21, 2006* the spectrum at 698-806 MHz—including the frequencies that years later were allocated to LTE Band 12—*was not available* for 4G (or any other) wireless communication because that spectrum was allocated to television. *Supra* §I.A.4; Baliarda-543, [0096]; DI, 60, 65, 67.

That means, as the Board correctly found, that a POSA reading the four corners of the '429 application on December 21, 2006 would have determined that the applicants *did not* possess the idea of an antenna system with an antenna configured to use LTE Band 12 (as it was later defined) because that would have meant using frequencies that were *not available* for wireless communication. PO provides no explanation how a POSA could reasonably have reached any other conclusion. Indeed they could not.

PO’s focus on the “4G communication standard” term also selectively ignores

that the “claimed subject matter” in the 4G limitations recite an *antenna system* comprising an *antenna* that is configured to use a *frequency band* associated with a *4G communication standard*. *Supra* §I.A.3. The ’429 application specifically distinguishes *antennas* configured to receive television signals from *antennas* in the invention’s *antenna system*, which are configured to use frequency bands for a “*4G communication standard*.” *Supra* §I.A.4; Baliarda-543, [0096].

This confirms that the POSA would have determined that the applicants did *not* possess the idea of using an *antenna system* with an *antenna* configured to use LTE Band 12 because on December 21, 2006 a POSA knew that an antenna configured to use frequencies within 698-806 MHz (a spectrum that years later would be defined to include LTE Band 12) would have been configured to receive TV signals. *Supra* §I.A.4. Thus, the POSA would have determined that on December 21, 2006 the applicants did not possess the idea of an antenna configured to use what was later defined as LTE Band 12. *Arthrex*, 35 F.4th at 1343-1344 (affirming Board finding priority document that criticized a “flexible eyelet” and described overcoming its disadvantages did not provide written description for the full scope of “*first member including an eyelet*” comprising a “flexible eyelet”).

The Board’s priority analysis was correct. The ’429 application does not provide written description supporting the full scope of claims 1-5 or 12-20. PO’s contention that the Board “performed the wrong analysis” is baseless.

2. There is no “novel legal theory” in the Board’s priority analysis.

PO argues that the Board’s priority analysis is somehow “novel” because the ’677 patent issued from a continuation rather than a continuation-in-part (CIP) application. Request, 4, 9-11, 15. This meaningless distinction is more obfuscation with no basis in law.

There is nothing “novel” about the Board’s priority analysis. The Federal Circuit unambiguously holds that the Board’s power to decide patentability challenges in IPR includes the power resolve priority disputes and determine whether a reference like Baliarda-543 is prior art by evaluating the written description of priority documents like the ’429 application. *Arthrex*, 35 F.4th at 1344-1345. PO does not seriously argue otherwise, nor could it.

Section 120 states that giving a claim the benefit of an earlier filing date requires that the priority document meet the requirements of 35 U.S.C. §112(a) and thus provide written description supporting the full scope of the claimed invention. 35 U.S.C. §120. Section 120 makes no distinction between a continuation or CIP application. PO cites no case holding otherwise because there is none.

It makes no difference to the priority dispute in this case that the ’677 patent is a continuation rather than a CIP. For any ’677 patent claim to be entitled to the December 21, 2006 filing date of the ’429 application, the law requires that the ’429 application provide a written description supporting the full scope of that claim.

Supra §I.A.2. The Board correctly applied that law. *Id.* Indeed, PO admits that there is no valid priority claim where “there is a clear difference between the scope of the priority application’s disclosure and the subject matter claimed in the child.” Request, 9. Those are exactly the facts of this case. *Supra* §I.A.4.

This is, in short, a problem entirely of PO’s own making. When it filed the application for the ’677 patent in 2020—14 years after the first non-provisional application—PO could have drafted claims that had support in the 2006 application’s disclosure. It chose not to. Instead, it drafted broadly worded claims that sweep far beyond the ’429 application’s written description. Those claims cannot be given the December 21, 2006 filing date of the ’429 application and the intervening Baliarda-543 publication anticipates them.

3. There is no claim construction dispute.

PO argues that Geotab “disagree[s]” that “4G communication standard” includes “LTE technologies.” Request, 11, 5. This misrepresents the Petition’s claim construction. As the Board observed, “Petitioner asserts that [a POSA] would have understood that ‘4G communication standard’ recited in claims 1 and 12 encompasses LTE frequency bands.” DI, 57; Pet., 28-31, 91, 94. Indeed, the Petition explained that since the parties agree on this construction there is no claim construction dispute that requires the Board’s resolution. Pet., 28.

PO makes the remarkable argument that despite the Petition’s express

language and arguments, Petitioners' construction of the 4G limitations does not include "LTE technologies" because the '429 application has no written description supporting LTE Band 12. Request, 11-13 ("If 698-806 MHz was expressly excluded by the '429 Application disclosure, there is no need for the '429 Application to provide written description for subject matter outside the scope of the claims."). This misrepresents the Petition and improperly conflates claim construction (which is undisputed) with the written description analysis. The Petition shows that on December 21, 2006, the POSA knew that the spectrum at 698-806 MHz was unavailable for wireless communications because it was allocated to television. The '429 application specifically distinguishes the invention from antennas that receive television signals. *Supra* §§I.A.4, I.B.1. That means on December 21, 2006 the '429 application did not describe, and the applicants did not possess, the idea of an antenna system comprising antennas that used frequencies that were then-allocated to television. *Supra* §I.B.1; *Arthrex*, 35 F.4th at 1343-1344.

PO's argument also misrepresents the law. PO nonsensically argues that the scope of the 4G limitations in claims 1-5 and 12-20 is set by the extent of the written description support in a priority document that PO contends provides priority to those claims (i.e., the '429 application). That is manifestly not the law. If it were the law, no claim would ever lack priority to a parent case, and no claim would ever fail the written description requirement in Section 112(a). PO cites no authority for this

argument because there is none. PO's argument has no merit and should be rejected.

II. PO'S NEW DISCRETIONARY DENIAL ARGUMENTS ARE BASELESS.

The Request's new discretionary denial arguments are baseless and should be rejected.

First, PO cites no authority for the proposition that discretionary denial is warranted where PO thinks that in FWD the Board will find some claims shown not unpatentable. Request, 14. As explained above, PO has no response to the Petition's showing that Baliarda-543 anticipates claims 1-5 and 12-20. Those claims should never have issued. In prosecution the Examiner plainly erred, material to patentability, by never appreciating that Baliarda-543 was anticipatory prior art to claims 1-5 and 12-20. This is yet another error material to patentability on top of the mountain of material error that Petitioners already identified in the opposition to PO's first request for discretionary denial. Paper 13, 6-12.

The Director has repeatedly said that correcting the Examiner's material error in prosecution is an appropriate use of the Board's resources that weighs decisively against discretionary denial. *See, e.g., Tesla, Inc. v. Charge Fusion Techs., LLC*, IPR2025-00152, Paper 11, 2-3 (Dir. June 12, 2025) (rejecting discretionary denial because material examiner error was shown); *Anthony, Inc. v. ControlTec, LLC*, IPR2025-00559, Paper 12, 2 (Dir. July 16, 2025) (same). "[I]t is an appropriate use of Office resources" to review the Examiner's material error. *Anthony*, IPR2025-

00559, Paper 12, 2. That remains true in this case.

Second, PO's argument that the Petition should be discretionarily denied because IPR will not "resolve all invalidity issues before the parties" is unsupported. Request, 14-15. PO's argument rests on a false premise and speculation that assumes claims 6-11 will survive IPR. Not so. Geotab will demonstrate at trial that claims 6-11 are unpatentable. PO's argument (Request, 15) the district court will "resolve all issues... likely in advance" of FWD is unsupported and contrary to the facts (Paper 13, 13-15) and the Director's determination that the expected timing of FWD and trial "neither favor nor counsel against discretionary denial." Paper 14, 2.

The Director has repeatedly denied post-institution requests for discretionary denial based on the idea that IPR will not resolve every litigation dispute. For example, in three recent IPRs the patent owner filed a Request for Director Review arguing that discretionary denial was warranted where IPR would not resolve all party disputes in litigation. *See Western Digital Techs., Inc. v. Godo Kaisha IP Bridge 1*, IPR2024-01447, Paper 12, 1 (Apr. 25, 2025) ("Given that the Board has already denied institution of five of nine IPRs challenging patents in the same family that Patent Owner has asserted against Petitioner in a parallel litigation, Patent Owner submits that good cause exists for the Director to *sua sponte* vacate institution of this IPR so that the entire dispute can be addressed in one forum—the district court."); *id.*, IPR2024-01493, Paper 12, 1 (May 6, 2025) (similar); *id.*, IPR2024-

01494, Paper 12, 1 (May 6, 2025) (similar). The Director denied each request. *See, e.g., Western Digital Techs., Inc. v. Godo Kaisha IP Bridge 1*, IPR2024-01447, Paper 21, 1 (Dir. Aug. 5, 2025); *id.*, IPR2024-01493, Paper 20, 1 (Dir. Aug. 5, 2025); IPR2024-01494, Paper 20, 1 (Dir. Aug. 5, 2025).

There are no materially new facts supporting PO’s new discretionary denial request. The Director referred the Petition in this case to the merits panel on October 17, 2025 (Paper 14)—a month *after* having discretionarily denied the petitions in related IPR2025-00928 and IPR2025-00929 on September 12, 2025. *E.g.*, IPR2025-00928, Paper 11. Nothing in PO’s Request merits any reconsideration here.

Third, as explained *supra* §I.B.2, there is nothing “novel” in the Petition’s showing that Baliarda-543 anticipates claims 1-5 and 12-20. PO’s contrary suggestion (Request, 15) is baseless. As the Federal Circuit explained in *Arthrex*, the Board is the correct forum to decide this anticipation ground. *Supra* §I.B.2.

III. CONCLUSION

The Board’s institution decision was correct, and PO’s new discretionary denial arguments are baseless. The Director should deny the Request.

Respectfully submitted,
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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6(e)(4)

I certify that on December 30, 2025, a copy of the foregoing document, including any exhibits filed therewith, is being served via electronic mail, as previously consented to by Patent Owner, upon the following:

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