

Filed on behalf of: Zhuhai CosMX Battery Co., Ltd.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZHUHAI COSMX BATTERY CO., LTD.,

Petitioner,

v.

NINGDE AMPEREX TECHNOLOGY LTD.,

Patent Owner.

Case No. IPR2023-00587

Patent No. 10,964,987

**PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE¹**

¹ This Reply was authorized by the Board's July 17, 2023, email (Exhibit 1024).

EXHIBIT LIST

Exhibit	Description
Ex. 1001	U.S. Patent No. 10,964,987
Ex. 1002	Prosecution History of U.S. Patent No. 10,964,987
Ex. 1003	Declaration of Dr. Samuel Gido
Ex. 1004	Curriculum Vitae of Dr. Samuel Gido dated February 22, 2023
Ex. 1005	Nishikawa et al., U.S. Patent No. 7,976,987
Ex. 1006	Iwai et al., U.S. Patent App. Pub. No. 2014/0248525
Ex. 1007	Honda et al., U.S. Patent App. Pub. No. 2015/0263325
Ex. 1008	Jurgen O. Besenhard (ed.), Handbook of Battery Materials (1999)
Ex. 1009	Seo et al., U.S. Patent No. 8,318,360
Ex. 1010	Lee et al., U.S. Patent No. 7,662,517
Ex. 1011	Safety Data Sheet for Aluminum hydroxide fine powder pure, hydrargillite (Sigma-Aldrich)
Ex. 1012	Schmitz et al., U.S. Patent App. Pub. No. 2015/0280195
Ex. 1013	Safety Data Sheet for poly (N,N' -(1,3-phenylene) isophthalamide) (Sigma-Aldrich)
Ex. 1014	Katayama et al., U.S. Patent App. Pub. No. 2011/0052987
Ex. 1015	Ueki et al., U.S. Patent No. 9,190,668
Ex. 1016	Akiike, U.S. Patent App. Pub. No. 2016/0013465
Ex. 1017	Patnaik, Handbook of Inorganic Chemicals (2003)

Ex. 1018	Ahmad et al., Synthesis of Polyvinylidene Fluoride (PVDF) Membranes for Protein Binding: Effect of Casting Thickness, Journal of Applied Polymer Science (2013)
Ex. 1019	Katayama et al., U.S. Patent App. Pub. No. 2010/0221965
Ex. 1020	ATL's Amended Complaint filed in Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co., Ltd., Civ. No. 2:22-cv-00232-JRG (E.D. Tex.)
Ex. 1021	ATL's Complaint filed in Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co., Ltd., Civ. No. 2:22-cv-00232-JRG (E.D. Tex.)
Ex. 1022	Docket Control Order in Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co., Ltd., Civ. No. 2:22-cv-00232-JRG (E.D. Tex.)
Ex. 1023	United States District Court Judicial Caseload Profile
Ex. 1024	July 17, 2023 Email from the Board Authorizing Reply to Patent Owner's Preliminary Response
Ex. 1025	ATL's Motion for Leave to Amend Infringement Contentions filed in Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co., Ltd., Civ. No. 2:22-cv-00232-JRG (E.D. Tex.) (Redacted)
Ex. 1026	Order Granting Leave to Amend Infringement Contentions issued in Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co., Ltd., Civ. No. 2:22-cv-00232-JRG (E.D. Tex.)

TABLE OF AUTHORITIES

Cases

<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020)...	1, 2, 3
<i>Boston Scientific Corp. v. Nevro Corp.</i> , IPR2020-01562, Paper 14 (PTAB Mar. 16, 2021)	1
<i>Ericsson Inc. v. Koninklijke KPN N.V.</i> , IPR2022-00079, Paper 9 (PTAB May 22, 2022).....	4
<i>Google LLC v. Valtrus Innovations Ltd.</i> , IPR2022-01545, Paper 12 (PTAB April 11, 2023)	3
<i>Microsoft Corp. v. WSOU Investments, LLC</i> , IPR2021-00930, Paper 8 (Dec. 2, 2021).....	4
<i>PNC Bank N.A. v. United Servs. Auto. Ass’n</i> , IPR2022-00076, Paper 20 (PTAB May 11, 2022)	2
<i>Protect Animals with Satellites v. OnPoint Sys.</i> , IPR2021-01483, Paper 11 (Mar. 4, 2022).....	4
<i>Samsung Elecs. Co., Ltd. v. Scramoge Tech. Ltd.</i> , IPR2022-00241, Paper 10 (PTAB June 13, 2022)	3
<i>Sand Rev’n II, LLC v. Continental Intermodal Grp.-Trucking LLC</i> , IPR2019-01393, Paper 24 (PTAB June 16, 2020).....	2

Because the Petition established a reasonable likelihood that Petitioner CosMX will prevail on at least one claim, the Board should institute. While Patent Owner ATL's Preliminary Response (Paper 9 ("POPR")) argued for discretionary denial under 35 U.S.C. § 314(a) in light of the parties' Eastern District of Texas litigation, the *Fintiv* factors favor institution for at least the reasons in the Petition (Paper 1 ("Petition"), 63-66) and below, particularly in view of CosMX's Factor 4 stipulation.

***Fintiv* Factor 1 is neutral.** ATL agrees. POPR, 57.

***Fintiv* Factor 2 is neutral.** The parties agree that trial in the litigation is currently scheduled for February 5, 2024. For the reasons in the Petition, CosMX maintains this factor is neutral and, even if not, does not warrant denial of institution in light of the other *Fintiv* factors and CosMX's stipulation. *See, e.g., Boston Scientific Corp. v. Nevro Corp.*, IPR2020-01562, Paper 14 at 20 (PTAB Mar. 16, 2021) ("[W]e consider all factors holistically and do not rely upon [] factor [2] in isolation.").

***Fintiv* Factor 3 favors institution.** While ATL contended in its POPR that the litigation "is *already* in an advanced stage," POPR, 60, ATL told the Eastern District of Texas just sixteen days before filing its POPR that the litigation "is still in its early stages." Ex. 1025 (ATL's Motion for Leave to Amend Infringement Contentions), 2. ATL's contrary arguments here do not withstand scrutiny.

Many of the “significant ongoing efforts” identified by ATL (POPR, 59-60) pertain to other asserted patents or “relate[] to ancillary matters untethered to the [’987 patent] validity issue itself.” *Sand Rev’n II, LLC v. Continental Intermodal Grp.-Trucking LLC*, IPR2019-01393, Paper 24 at 11 (PTAB June 16, 2020) (informative). The “six depositions” ATL cites (POPR, 59), for instance, include depositions concerning other asserted patents and issues unrelated to validity. Likewise, many of the “2,000,000+ pages²” and all the “physical samples” produced are irrelevant to the issues in this proceeding, as is the “[t]hird-party discovery.” POPR, 59. And while ATL represents that its infringement contentions have been served, ATL fails to mention that it moved, shortly before filing its POPR, to *amend* its contentions related to the ’987 patent to add four more claims and several hundred new accused products. Ex. 1025. That motion has now been granted. Ex. 1026. The only “substantive order[] related to the patent at issue in the petition” that could issue by the Board’s institution decision is a claim construction decision limited to whether claims of the ’987 patent are indefinite—an issue not considered in this proceeding. *Fintiv*, Paper 11 at 9-10. And “pre-trial dispositive motions” due *after* institution are irrelevant. *PNC Bank N.A. v. United Servs. Auto. Ass’n*, IPR2022-00076, Paper 20 at 11 (PTAB May 11, 2022).

² CosMX has produced over 2,000,000 pages. ATL has produced about 59,000.

Finally, CosMX’s diligence in filing this petition just over three months after ATL served its initial infringement contentions—contentions that ATL has just amended—favors institution. Exs. 1025, 1026. *See, e.g., Samsung Elecs. Co., Ltd. v. Scramoge Tech. Ltd.*, IPR2022-00241, Paper 10 at 11 (PTAB June 13, 2022) (acknowledging “diligence in filing the Petition within three months” of contentions). “[I]t is often reasonable for a petitioner to wait to file its petition until it learns which claims are asserted against it in the parallel proceeding,” something that did not happen here until long after CosMX’s filing. *Fintiv*, Paper 11 at 11.

***Fintiv* Factor 4 weighs in favor of institution.** Only this IPR will consider claims 10-16 of the ’987 patent. Claim 10 is an independent claim, and claims 10-16 are the only method claims in the ’987 patent. They recite limitations not present in the remaining device claims, including the “first solvent,” the “second solvent,” and the “mixing,” “adding,” “stirring,” and “coating” steps. *See Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01545, Paper 12 at 17 (PTAB April 11, 2023) (non-overlapping, dissimilar claims favor institution).

ATL’s sole argument on Factor 4 is that the *Nishikawa* and *Iwai* references are relied on in the litigation. CosMX moots this argument with the following stipulation: If the Patent Trial and Appeal Board institutes an *Inter Partes* Review in this proceeding on the grounds presented in the Petition (Paper 1), then CosMX will not pursue the same petitioned invalidity grounds in the related district court action

(Civ. No. 2:22-cv-00232-JRG), nor will CosMX pursue any invalidity ground that includes *Nishikawa*, *Honda*, or *Iwai*. The Board has found such a stipulation “mitigates any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions” and favors institution. *See, e.g., Microsoft Corp. v. WSOU Investments, LLC*, IPR2021-00930, Paper 8 at 11 (Dec. 2, 2021) (instituting where trial was nine months before FWD and claim construction was complete); *see also Ericsson Inc. v. Koninklijke KPN N.V.*, IPR2022-00079, Paper 9 at 13 (PTAB May 22, 2022) (similar).³

***Fintiv* Factor 5 is neutral.** ATL does not dispute the applicability of *Protect Animals with Satellites v. OnPoint Sys.*, IPR2021-01483, Paper 11 at 17 (Mar. 4, 2022), which CosMX cited in its Petition for the proposition that this factor is “neutral.” Petition, 65.

***Fintiv* Factor 6 favors institution.** The criticisms advanced in ATL’s POPR misrepresent *Nishikawa* and *Iwai*. In arguing *Nishikawa* fails to teach a “Dv90,” for example, ATL ignores that *Nishikawa*’s reported “d90,” while weight based, is derived from a *volume*-based Dv90. *Nishikawa*, 12:49-61 (“Particle Size

³ Where the Board has not instituted despite a similar stipulation, other factors weighed heavily in favor of denial. *See, e.g., LG Elecs., Inc. v. Ancora Techs., Inc.*, IPR2021-00581, Paper 16 at 9-11 (PTAB June 10, 2021) (trial had already started).

Distribution of Inorganic Filler” is measured “with a laser diffraction particle size distribution measuring apparatus (Mastersizer 2000, produced by Sysmex Corporation)” that measures a “**volume particle size distribution**”). ATL also contends *Nishikawa*’s “mixed solvent” cannot be the claimed “first solvent,” but offers no legal or factual justification for construing “first solvent” this way. Finally, ATL challenges that *Iwai* “never **suggests or directs** a POSA to conduct an analysis to determine D90.” But anticipation requires no suggestion or direction; only that a POSA would have understood *Iwai* to teach this—and Dr. Guido explained that a POSA would. Ex. 1003, ¶¶156-164. ATL’s remaining criticisms rely on unsupported opinions from Dr. Wheeler that Dr. Guido could rebut after institution.

The Petition establishes more than a reasonable likelihood of prevailing on at least one claim, and ATL fails to show otherwise. CosMX respectfully requests that the Board grant institution and find claims 1–17 of the ’987 patent unpatentable.

Respectfully submitted,

Date: July 31, 2023

By: /Michele C. Bosch/
Michele C. Bosch (Reg. No. 40,524)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on July 31, 2023, a copy of the foregoing **Petitioner's Reply to Patent Owner's Preliminary Response** and **Exhibits 1024 through 1026** were served electronically via email on the following:

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Patent Owner has consented to service by email.

Dated: July 31, 2023

By: /William Esper/
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