

Case IPR2025-00720
Patent No. 9,769,776
Patent Owner's Preliminary Response

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

ONEPLUS TECHNOLOGY (SHENZHEN) CO., LTD.,
Petitioners,

v.

PANTECH CORPORATION,
Patent Owner

Case: IPR2025-00720

U.S. Patent No. 9,769,776

PATENT OWNER'S PRELIMINARY RESPONSE

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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PATENT OWNER’S EXHIBIT LIST

Exhibit No.	Description
2001	Second Amended Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 58) (May 13, 2025)
2002	United States District Courts – National Judicial Caseload Profile
2003	Pantech Corporation’s July 9, 2021 Notice Letter to OnePlus Technology Co., Ltd.
2004	Third Amended Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 86) (July 17, 2025)
2005	Order Modifying Dates in Docket Control Order, <i>Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 85) (July 17, 2025)
2006	Jury Verdict, <i>Pantech Corp. v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:22-cv-00069-RWS (E.D. Tex.) (Dkt. 259) (April 1, 2024)
2007	Final Judgment, <i>Pantech Corp. v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:22-cv-00069-RWS (E.D. Tex.) (Dkt. 499) (Jan. 23, 2025)
2008	Kiri Gupta & Urska Petrovcic, <i>Evidence of Systematic “Patent Holdout”</i> , 38 Berkeley Tech. L. J. (2023)
2009	Richard A. Epstein & Kayvan B. Noroozi, <i>Why Incentives for “Patent Holdout” Threaten to Dismantle FRAND, and Why It</i>

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	<i>Matters</i> , 32 Berkeley Tech. L.J. 1381 (2017)
2010	Kalyan Dasgupta & David J. Teece, <i>Protecting Innovation in the Mobile Wireless Ecosystem: Understanding & Addressing “Hold-Out”</i> , 38 Berkeley Tech. L.J. 313 (2023)
2011	<i>Markman Order, Pantech Corporation and Pantech Wireless, LLC v. OnePlus Technology (Shenzhen) Co., Ltd.</i> , No. 5:24-CV-00038-RWS-JBB (E.D. Tex.) (Dkt. 90) (July 30, 2025)

I. INTRODUCTION

Patent Owner Pantech Corporation (“Pantech”) respectfully requests that United States Patent and Trademark Office (“USPTO” or the “Office”) Patent Trial and Appeal Board (“PTAB” or the “Board”) deny institution of *inter partes* review of claims 1-8 (the “challenged claims”) of U.S. Patent No. 9,769,776 (“the ’776 Patent”). Petitioner OnePlus Technology (Shenzhen) Co., Ltd.’s (“Petitioner” or “OnePlus”) has failed to demonstrate a reasonable likelihood of prevailing with respect to at least one challenged claim.

Petitioner’s primary reference for all Grounds 1-4—Dinan—is not prior art to the challenged claims. Further, Petitioner’s final ground of alleged invalidity—obvious by TS36.331 in view of Sharp—lacks critical elements of the independent challenged claims, including those pertaining to the TAG identifier. *See* ’776 Patent at claims 1 and 5.

Accordingly, Petitioner has failed to meet its burden of showing a reasonable likelihood of prevailing with respect to the invalidity of any of the challenged claims. The Board should deny Petitioner’s request to institute *inter partes* review.

II. BACKGROUND

A. Background of the ’776 Patent

The ’776 Patent relates to the field of wireless communications. More particularly, the invention of the ’776 Patent relates to an apparatus and method for

uplink synchronization in a multiple component carrier system. '776 Patent at 1:20-23. By implementing the invention of the '776 Patent, uplink synchronization in a multiple component carrier system can be accomplished, including by reorganizing a TAG based on a random access procedure. '251 Patent at 2:16-54.

The '776 Patent is entitled "Apparatus and method for uplink synchronizing in multiple component carrier system," issued on September 19, 2017, and claims priority to Korean Patent Application KR 10-2012-0030216, filed on March 23, 2012. The '776 Patent is a continuation of the applications that led to U.S. Patent No. 9,516,614 and U.S. Patent No. 8,964,645.

B. Summary of Petitioner's Proposed Grounds for Unpatentability

Petitioner contends that claims 1-8 of the '776 Patent would have been invalid under pre-AIA 35 U.S.C. §§ 102 and 103. The Petition raises five grounds of alleged unpatentability based on the following references:

1. U.S. Patent Application Publication No. 2013/0188613 ("Dinan");
2. 3GPP Technical Specification 36.331 v10.4.0 ("TS36.331");
3. 3GPP Technical Document R2-115812 ("Potevio");
4. 3GPP Technical Document R2-120218 ("Sharp").

The specific grounds of alleged invalidity are summarized as follows:

Ground	Basis	Claims	References
1	§102 (pre-AIA)	1-8	Dinan
2	§103 (pre-AIA)	1-8	Dinan
3	§103 (pre-AIA)	1-8	Dinan in view of Potevio
4	§103 (pre-AIA)	1-8	Dinan in view of Sharp
5	§103 (pre-AIA)	1-8	TS36.331 in view of Sharp

C. Petitioner’s Relied-Upon References

The four references relied upon by Petitioner are summarized as follows:

1. ***Overview of Dinan (Ex. 1009)***

U.S. Patent Application Publication No. 2013/0188613 (“Dinan”) is a patent application entitled “Configuring Base Station and Wireless Device Carrier Groups.” Dinan was filed on January 24, 2013 and published on July 25, 2013. Dinan purports to relate to the “operation of multiple timing advance groups.” EX1009 at ¶ [0018].

Dinan claims priority to, *inter alia*, U.S. Provisional Application No. 61/590,366 (“Dinan-Prov”) (EX1010), filed January 25, 2012. Dinan-Prov is

entitled “Carrier Groups in Multicarrier Networks.” EX1010.

2. ***Overview of TS36.331 (Ex. 1005)***

3GPP Technical Specification 36.331 v10.4.0 (“TS36.331”) is a technical specification from the 3rd Generation Partnership Project published in December, 2011. EX1005. TS36.331 specifies the Radio Resource Control protocol for the radio interface between UE and E-UTRAN as well as for the radio interface between RN and E-UTRAN. *See id.* at 14.

3. ***Overview of Potevio (Ex. 1007)***

3GPP Technical Document R2-115812 (“Potevio”) is a submission to 3GPP’s servers on November 6, 2011 from Potevio. EX1007. Potevio is associated with 3GPP TSG-RAN WG2 Meeting #76. *Id.* Potevio’s title is “Signalling for TA group configuration.” *Id.*

4. ***Overview of Sharp (Ex. 1006)***

3GPP Technical Document R2-120218 (“Sharp”) is a submission to 3GPP’s servers on January 31, 2012 from Sharp. EX1006. Sharp is associated with 3GPP TSG-RAN WG2 #77. *Id.* Sharp’s title is “TA group handling.” *Id.*

III. CLAIM CONSTRUCTION

For purposes of this Preliminary Response, Patent Owner also applies the plain and ordinary meaning of all terms.

IV. LEGAL STANDARDS FOR INVALIDITY

A. Anticipation under 35 U.S.C. § 102

Anticipation under 35 U.S.C. § 102 requires that a single prior art reference disclose each and every limitation of the claimed invention. *Schering Corp. v. Geneva Pharms.*, 339 F.3d 1373, 1379-80 (Fed. Cir. 2003).

B. Obviousness under 35 U.S.C. § 103

A claim is not patentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. 35 U.S.C. § 103(a). Obviousness requires assessing (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

It is a petitioner’s burden “to demonstrate both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (quotations and citations

omitted). However, a petitioner must first show that all of the claimed elements are disclosed in the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164 (Fed. Cir. 2006) (considering motivation to combine and reasonable expectation of success only “if all the elements of an invention are found in a combination of prior art references”).

V. THE PETITION DOES NOT SHOW A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CHALLENGED CLAIM

In addition to the grounds already presented in Patent Owner’s Request for Discretionary Denial, institution should be denied because Petitioner does not establish a reasonable likelihood of prevailing against any challenged claim.

A. Grounds 1-4: Petitioner Fails To Establish that Dinan is Prior Art to the Challenged Claims

Each of Grounds 1-4 relies upon Dinan as a primary reference. However, because at least one claim of Dinan is not supported by Dinan-Prov, Dinan is not prior art to the challenged claims. Accordingly, Petitioner has not shown a likelihood of success with regard to any of Grounds 1-4.

Petitioner does not contest that the claims of the ’776 Patent are entitled to a priority date of March 23, 2012. *See* Pet. at 13. Thus, because Dinan was not filed until January 24, 2013 (*see* EX1009), Dinan is not prior art to the challenged claims absent a proper priority claim to an earlier application under 35 U.S.C. § 102(e) (pre-AIA). Petitioner claims that Dinan is entitled to the priority date of Dinan-Prov, but

Petitioner has not supported such a contention.

As a matter of law, “a prior art patent or published application cannot be accorded the benefit of its provisional application’s filing date absent a showing that the provisional application provides support for the claims of the patent or published application.” *See In re Riggs*, 131 F.4th 1377, 1384 (Fed. Cir. 2025).

To allegedly satisfy this requirement, Petitioner alleges that “Claim 1 of Dinan is described in the ’366 provisional application,” without further discussion, and cites to EX1003 at ¶¶ 112-16 for support. *See* Pet. at 13. Petitioner makes no other arguments in this regard. *Id.*

But Dr. Kakaes’s Declaration (EX1003) does not establish that claim 1 of Dinan is supported by Dinan-Prov. Claim 1 of Dinan is reproduced below:

A method comprising:

a) transmitting, by a base station configured to communicate employing a plurality of cells, at least one control message to a wireless device in a plurality of wireless devices, said at least one control message:

i) configured to cause in said wireless device:

(1) configuration of at least one secondary cell in said plurality of cells; and

(2) assignment of each of said at least one secondary cell to a cell group in a plurality of cell groups, said plurality of cell groups comprising:

(a) a primary cell group comprising a first subset of said

plurality of cells, said first subset comprising a primary cell, uplink transmissions by said wireless device in said primary cell group employing a first synchronization signal transmitted on said primary cell; and

(b) at least one secondary cell group, a first secondary cell group in said at least one secondary cell group comprising a second subset of said at least one secondary cell, said second subset comprising a reference secondary cell, uplink transmissions in said secondary cell group employing a second synchronization signal on said reference secondary cell as a secondary timing reference; and

ii) comprising a plurality of dedicated parameters specific to said wireless device, for each of said at least one secondary cell:

(1) if said plurality of dedicated parameters comprise a cell group index for said secondary cell, assigning said secondary cell to one of said at least one secondary cell group identified by said cell group index; and

(2) otherwise, assigning said secondary cell to said primary cell group;

b) transmitting, by said base station, a control command configured to cause transmission of a random access preamble on random access resources of a secondary cell in said secondary cell group; and

c) transmitting, by said base station, a random access response, said random access response comprising a timing advance command for said secondary cell group.

See EX1009 at 40.

Thus, claim 1 of Dinan requires “at least one control message: i) configured to cause in said wireless device... and ii) comprising a plurality of dedicated parameters specific to said wireless device, for each of said at least one secondary cell:...” *Id.* In other words, the same control message must satisfy both the (i) and (ii) claim requirement.

Dr. Kakaes does not address the requirement that limitations (i) and (ii) must correspond to the same control message, but instead addresses limitations (i) and (ii) separately. *See generally*, EX1003 at ¶ 115, chart at pages 57-71. This is a critical deficiency that fails to show that Dinan qualifies as prior art to the challenged claims.

At page 57-58 of EX1003, Dr. Kakaes is not clear what “control message” he is identifying as meeting the claim requirement. As best as can be understood from the passages of Dinan-Prov cited, Dr. Kakaes is pointing to “an RRC reconfiguration message,” as this is the only message in the passages identified. EX1003 at 57-58.

At pages 58-66 of EX1003, Dr. Kakaes addresses the (i) limitation of claim 1. *Id.* at 58-66. Dr. Kakaes again does not identify any particular message at issue that allegedly meets this claim limitation, but as best as can be understood, Dr. Kakaes cites to “RRC signaling” and “an RRC reconfiguration message.” *Id.* at 58.

At pages 66-71 of EX1003, Dr. Kakaes addresses the (ii) limitation of claim

1. *Id.* at 66-71. Dr. Kakaes makes no attempt to tie his citations for limitation (ii) to the same message at issue for limitation (i). *Id.* As best as can be understood, Dr. Kakaes points to “PRACH configuration for the SCell” as satisfying the claim’s message requirement of “comprising a plurality of dedicated parameters specific to said wireless device,” but does not identify the associated message. *Id.* at 66. The citations in Dr. Kakaes’ chart do mention a “received RRC Connection Reconfiguration message” (*id.* at 67) (although this message is not tied to the functionality that might satisfy limitation (ii)) and discuss “RRC connection establishment/re-establishment/handover” generally (*id.* at 69), but the particular message at issue for this limitation is unclear and there is no reason to conclude that any message involved is the same message as would be used for the message for limitation (i).

Thus, Dr. Kakaes is entirely unclear about the messages he points to, and does not address, much less show, that the same message he points to for the functionality in limitation (i) is the same message that he points to for the functionality in limitation (ii). *See generally, id.* at 57-71. Addressing these limitations separately, with different citations and message types identified, comes far short of carrying Petitioner’s burden to “show[] that the provisional application provides support for the claims of the patent or published application.” *See Riggs*, 131 F.4th at 1384.

B. Ground 5: TS36.331 in view of Sharp Does Not Render the Challenged Claims Invalid.

Ground 5 relies on TS36.331 in view of Sharp through a theory of obviousness, but the combination proposed by Petitioner is insufficient to show obviousness of any challenged claim. TS36.331 in view of Sharp does not render obvious the claim limitations of independent claims 1 and 5 of the '776 Patent pertaining to the TAG identifier, which are critical limitations of these claims. Accordingly, the alleged combination of TS36.331 and Sharp does not render obvious any challenged claim.

Claim elements [1.c] and [5.c] require that the “second field” that includes “at least one SCellIndex to add one or more SCell associated with the at least one SCellIndex” also include “an identifier of a timing advance group (TAG) associated with the one or more SCell.”

But neither TS36.331 nor Sharp supply this limitation or render it obvious. As Petitioner concedes, Sharp discloses that “TAG-ID configuration should be included in UL configuration of *PhysicalConfigDedicatedSCell*.” EX1006 at 3; *see also id.* (“TAG-ID is only associated with the UL of SCell dedicated configuration. Therefore it is suitable to set TAG-ID in the UL configuration of *PhysicalConfigDedicatedSCell*.”); *see generally*, Pet. at 58-60.

But the “UL configuration of *PhysicalConfigDedicatedSCell*” is a different

field than Petitioner points to with regard to the “second field” including “at least one SCellIndex to add one or more SCell associated with the at least one SCellIndex” limitation of [1.b]. *See* Pet. at 57-58. For this field, Petitioner points to “a UE receiving from a base station an RRC message (“*RRCConnectionReconfiguration*”) with a field (the “*sCellToAddModList*”) including an *SCellIndex* to identify at least one associated SCell to be added. *See* Pet. at 57. Simply put, the *PhysicalConfigDedicatedSCell* field is a different field as *sCellToAddModList*.

Seemingly recognizing this flaw, Petitioner argues that “[a] POSA would have also found it obvious to include the TAG-ID disclosed in Sharp to the *sCellToAddModList* field of TS36.331 such that the TAG-ID is in the field adding the SCell [because] [a] POSA would have recognized that the *sCellToAddModList* is one of a finite number of equally-suitable RRC messages for the TAG-ID.” *See* Pet. at 60. But TS36.331 *also* discloses a *PhysicalConfigDedicatedSCell* field. *See* EX1005 at 174, 184.

There would be no reason to change the functionality that Sharp suggests from the field suggested by Sharp that exists in TS36.331 to a different field, and Petitioner suggests none. Dr. Kakaes does not address that the *PhysicalConfigDedicatedSCell* field exists in TS36.331; he simply alleges (in a verbatim copy of the Petition) that “the *sCellToAddModList* is one of a finite number

of suitable RRC message structures for conveying the corresponding TAG-ID.” *See* EX1003 at ¶ 296. This sort of unsupported allegation is insufficient to prove the combination of TS36.331 and Sharp that Petitioner alleges would have been obvious.

Petitioner’s citation to Dinan-Prov to supposedly cure this deficiency (Pet. at 60) is also unavailing. Dinan-Prov was not published, and whether or not its disclosures count as prior art, its proposals do not come close to establishing “the knowledge of a POSA at the time of the ’776 patent” if Petitioner is trying to establish general knowledge. Pet. at 60. Dinan-Prov is not a part of Ground 5’s combination of prior art, and as the Federal Circuit has explained with regard to the general knowledge of a POSITA, albeit in the context of the Section 101 inquiry, what is “well-understood, routine, and conventional goes beyond what was simply known in the prior art.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 1018).

Thus, Petitioner has not shown any likelihood of success with regard to Ground 5.

VI. CONCLUSION

For at least the foregoing reasons, the Board should deny institution.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of September, 2025, a copy of the attached **PATENT OWNER'S PRELIMINARY RESPONSE** was served by electronic mail to the attorneys of record, at the following addresses:

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CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 CFR 42.24(d), the undersigned certifies that this Preliminary Response complies with the type-volume limitation of 37 CFR §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 2,708 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

Respectfully submitted,

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