

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

AVANT LOCATION TECHNOLOGIES LLC,

Patent Owner.

Patent No. 9,119,030

Filing Date: December 5, 2014

Issue Date: August 25, 2015

Inventor: Carlos A. Perez Lafuente

Title: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION
PRESENCE IN A SPECIAL AREA

PATENT OWNER'S PRELIMINARY RESPONSE

Case No. IPR2025-01257

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LIST OF EXHIBITS

Exhibit No.	Description of Document
2001	Third Amended Docket Control Order (Dkt. 27), <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex. October 17, 2025)
2002	Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 2:24-cv-0757-JRG (E.D. Tex. Sept. 13, 2024)
2003	Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 7-25-cv-00445-ADA (W.D. Tex. Oct. 1, 2025)
2004	<i>Ecobee Techs. ULC's Invalidity</i> and Subject Matter Eligibility Contentions in <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex.), dated March 14, 2025
2005	Apple Inc.'s First Amended Invalidity and Patent-Eligibility Contentions in <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 2:24-cv-0757-JRG (E.D. Tex.), dated July 14, 2025
2006	Email Correspondence between Julian Pymeto (Counsel for Patent Owner in the EDTX Apple Litigation / WDTX Apple Litigation) and Andrew Danford (Counsel for Petitioner in the EDTX Apple Litigation / WDTX Apple Litigation)
2007	First Amended Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 7-25-cv-00445-ADA (W.D. Tex. Nov. 14, 2025)
2008	Joint Claim Construction Chart Under 4-5(d), Dkt. 30, <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex.), filed October 31, 2025

I. INTRODUCTION

On September 11, 2025, Apple Inc. (“Petitioner” or “Apple”) submitted a Petition (Paper 2, “Petition” or “Pet.”) to institute *inter partes* review (“IPR”) of U.S. Patent No. 9,119,030 (Ex. 1001, the “’030 Patent”), challenging Claims 1-11 (the “Challenged Claims”). The Petition asserts that (i) Claims 1 and 4-11 are rendered obvious over U.S. Patent No. 8,615,256 (Ex. 1005, “Putkiranta”) and U.S. Patent Application Publication No. US 2006/0135174 (Ex. 1006, “Kraufvelin”); (ii) Claims 2-3 are rendered obvious over Putkiranta, Kraufvelin, and U.S. Patent No. 6,122,510 (Ex. 1037, “Granberg”); (iii) Claims 1 and 4-11 are rendered obvious over U.S. Patent No. 6,628,938 (Ex. 1011, “Rachabathuni”) and U.S. Patent Application Publication No. US 2004/0203863 (Ex. 1016, “Huomo”); and (iv) Claims 2-3 are rendered obvious over Rachabathuni, Uomo, and Granberg. Pet. at 15. The Board should deny the Petition for at least the reasons described briefly below.

Petitioner fails to show that the combinations of Putkiranta and Kraufvelin or Rachabathuni and Uomo disclose at least “electronically storing in one or more memories data capable of linking the mobile station to the first special area, the data including a checking data of the first radio communication defining device and a first identifier related to the mobile station,” as Required by Claim Element [1.1].

First, the Petition is deficient because nowhere does Putkiranta disclose that cell identifiers / base station cell and IMSI / MS-ISDN are electronically stored in Putkiranta's service server or that cell identifiers / base station cell and IMSI / MS-ISDN stored in a mobile station "link[] the mobile station to the first special area."

Second, the Petition is deficient because Rachabathuni's location identification is not related to any radio communication defining device but rather to the "locations and user identities of users of wireless devices." Petitioner's identified user identity and location identification also do not link the user to any special area.

Third, the Petition is deficient because Petitioner failed to apply the proper construction of "checking data" that it had agreed to in the District Court Litigation: "data that the mobile station compares against information from a received signal to determine whether the received signal is a distinctive defining signal."

Accordingly, the Board should deny institution of the Petition

II. CLAIM CONSTRUCTION

Petitioner's assertion that "[c]laim terms in IPRs are construed according to their 'ordinary and customary meaning' to those of skill in the art" (Pet. at 14) contradicts its positions in *Avant Location Techs. LLC v. Apple Inc.*, Case No. 2:24-cv-00757-JRG (E.D. Tex.) (the "District Court Litigation"). In the District Court Litigation, Petitioner agreed to the following constructions, which Patent Owner

ultimately also agreed to:

Claim Term	Claims	Proposed Construction
“checking data”	’030 Patent, Claims 1 and 7	“data that the mobile station compares against information from a received signal to determine whether the received signal is a distinctive defining signal.”
“special area”	’030 Patent, Claims 1-2 and 10-11	“area within the coverage of at least one distinctive defining signal”
“radio communication defining device” / “radio communication defining devices”	’030 Patent, Claim 1	“device capable of at least wirelessly transmitting radio distinctive defining signals that by their coverage define a special area”
“mobile station”	’030 Patent, Claims 1-5, 7, 10, and 11	a mobile device such as a mobile phone or PDA
“presence related service[s]”	’030 Patent, Claims 1, 2, 5, 6, and 11	“services provided to a mobile station depending on its presence in a special area”

Ex. 2008.¹ The Petition does not assume that the plain and ordinary meaning of these terms is as limited as the parties’ agreed-upon constructions, and the Petition’s analysis of the claim limitations containing these terms against the cited references does not indicate that those references disclose the claim terms under Petitioner’s

¹ While filed after Apple Inc. was deconsolidated from the case, the positions therein were jointly held by Defendants Apple Inc. and Ecobee Technologies ULC d/b/a ecobee.

agreed constructions in the District Court Litigation.

If Petitioner believed that any claim terms required construction, it had a duty to identify “[h]ow the challenged claim is to be construed” in its Petition. 37 C.F.R. § 42.104(3); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide, November 2019, at 48 (“The Board, in its claim construction determinations, will consider statements regarding claim construction made by patent owners and by a petitioner filed in other proceedings, if the statements are timely made of record.”) (citations omitted). Instead, Petitioner chose to apply the plain and ordinary meaning in this proceeding while agreeing to narrower constructions in the District Court Litigation. Therefore, the parties’ agreed-upon constructions in the District Court Litigation should be applied in this proceeding.

For the purposes of this Preliminary Response, Patent Owner notes that since both Patent Owner and Petitioner agreed to the constructions of the above terms in the District Court Litigation, it is highly likely that the District Court will enter the agreed constructions. Patent Trial and Appeal Board Consolidated Trial Practice Guide, at 47 (citations omitted) (“Parties should submit a prior claim construction determination by a federal court or the ITC in an AIA proceeding as soon as that determination becomes available. Preferably, the prior claim construction determination should be submitted with the petition, preliminary response, or response, along with explanations. Submission of a prior claim construction

determination is mandatory under 37 C.F.R. § 42.51(b), if it is ‘relevant information that is inconsistent with a position advanced by the party during the proceeding.’”).

III. LEVEL OF ORDINARY SKILL IN THE ART

For the purposes of this Preliminary Response only, Patent Owner applies Petitioner’s definition of a POSITA. Pet. at 14.

IV. PETITIONER HAS NOT DEMONSTRATED A REASONABLE LIKELIHOOD OF SUCCESS FOR THE GROUNDS ADVANCED IN THE PETITION, AND THE PETITION SHOULD BE DENIED

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) so-called secondary considerations where in evidence. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983).

The Board has held that a failure to identify the differences between the claimed subject matter and the prior art is fatal to an obviousness challenge. *See, Apple, Inc. v. Contentguard Holdings, Inc.*, IPR2015-00355, Decision Denying Institution of *Inter Partes* Review, Paper 9 at 9-10 (P.T.A.B. June 26, 2015)

(denying institution for failure to identify the differences between the claimed subject matter and the prior art).

In arriving at an obviousness determination, the Board must sufficiently explain and support the conclusions that the prior art references disclose all the elements recited in the Challenged Claims and a relevant, skilled artisan not only could have made, but would have been motivated to combine all the prior art references in the way the patent claims and reasonably expected success. *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017). That is, even if all the claim elements are found across a number of references, an obviousness determination must consider whether a person of ordinary skill in the art would have the motivation to combine those references. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1368 (Fed. Cir. 2016); *Los Angeles Biomedical Rsch. Inst. at Harbor-UCLA Med. Ctr. v. Eli Lilly & Co.*, 849 F.3d 1049, 1067 (Fed. Cir. 2017) (vacating and remanding an obviousness determination, in part, because the Board did not make factual finding as to whether there was an apparent reason to combine all three prior art references to achieve the claimed invention and whether a person of skill in the art would have had a reasonable expectation of success from such a combination). This combinability determination, as supported by an articulated motivation to combine, requires a plausible rationale as to why those prior art references would have worked together. *Broadcom Corp. v. Emulex Corp.*,

732 F.3d 1325, 1335 (Fed. Cir. 2013). Absent some articulated rationale, a “common sense” finding is no different than the conclusory statement “would have been obvious.” *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017). Of additional importance, “knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references” *Innogenetics, N.V. v. Abbott Lab’ys*, 512 F.3d 1363, 1373 (Fed. Cir. 2008).

A. The Petition Does Not Show That Putkiranta and Kraufvelin Discloses “*electronically storing in one or more memories data capable of linking the mobile station to the first special area, the data including a checking data of the first radio communication defining device and a first identifier related to the mobile station,*” as Required by Claim Element [1.1]

Claim 1 of the ’030 Patent requires “electronically storing in one or more memories data capable of linking the mobile station to the first special area, the data including a checking data of the first radio communication defining device and a first identifier related to the mobile station.” Petitioner only relies on Putkiranta to disclose this claim limitation. Pet. at 29-30.

First, the Petition is deficient because Petitioner fails to show electronic storage of “a checking data of the first radio communication defining device and a first identifier related to the mobile station.” Petitioner argues that Putkiranta’s base station cell or cell identifiers are the claimed “checking data” and Putkiranta’s IMSI or MS-ISDN are the claimed “first identifier.” However, Petitioner never shows that

both of the cell identifiers / base station cell and IMSI / MS-ISDN are electronically stored in one or more memories. Petitioner's citations to the specification of Putkiranta are inapposite. Pet. at 30. Each of those is taken in turn below:

Ex. 1005, 6:26-33 discloses that “the service server reads from its memory which services should be offered to the mobile station in that localized service area and sends a service request 204 to the appropriate application server. The information about what services are provided by which application servers is also stored in the memory of the service server.” Ex. 1005, 2:22-32 only discloses that “a service server which is arranged to maintain information concerning the location of mobile stations in localized service areas and to generate requests for changing the service selection offered to mobile stations in response to receiving, from the mobile stations, mobile station generated messages describing the location of the mobile stations in relation to localized service areas, and means for changing the service selection offered to a mobile station on the initiative of the communications system in response to an indication of the arrival of the mobile station in said localized service area.” Ex. 1005, 6:59-63 only discloses that “the service server may have instructions stored in its memory to request services from more than one application server.”

In short, nowhere does Putkiranta disclose that cell identifiers / base station cell and IMSI / MS-ISDN are electronically stored in Putkiranta's service server.

Second, Petitioner also discloses an alternative theory in which the mobile station stores cell identifiers / base station cell and IMSI / MS-ISDN. However, in this alternative, Petitioner fails to disclose the rest of the claim limitation, namely, “linking the mobile station to the first special area.” Petitioner completely fails to show how the storage of any cell identifiers / base station cell and IMSI / MS-ISDN in the mobile station also links the mobile station to the first special area. Pet. at 30.

Third, Petitioner failed to apply the proper construction of “checking data” that it had agreed to in the District Court Litigation. Specifically, Petitioner’s analysis is devoid of any analysis of how the purported checking data of a cell identifier or base station cell is “data that the mobile station compares against information from a received signal to determine whether the received signal is a distinctive defining signal.”

Because of these deficiencies, institution should be denied.

B. The Petition Does Not Show That Any Combination of Rachabathuni and Uomo Discloses “*electronically storing in one or more memories data capable of linking the mobile station to the first special area, the data including a checking data of the first radio communication defining device and a first identifier related to the mobile station,*” as Required by Claim Element [1.1]

Claim 1 of the ’030 Patent requires “electronically storing in one or more memories data capable of linking the mobile station to the first special area, the data including a checking data of the first radio communication defining device and a

first identifier related to the mobile station.” Petitioner only relies on Rachabathuni to disclose this claim limitation. Pet. at 64-66.

First, the Petition is deficient because Rachabathuni’s “location identification field” is not the claimed “checking data,” as Petitioner states. Pet. at 65. Petitioner ignores that the “checking data [is] of the first radio communication defining device.” Rachabathuni’s location identification is not related to any radio communication defining device but rather to the “*locations* and user identities of users *of wireless devices*,” that is, at best, the location of a mobile station. Ex. 1011, 6:55-57 (emphasis added).

Second, the Petition is deficient because Petitioner ignores that the claimed checking data and first identifier are part of the data “linking the mobile station to the first special area.” Petitioner’s identified user identity and location identification do not link the user to any special area, let alone Petitioner’s identified “special area,” that is “[t]he transmission range of a wireless beacon.” Pet. at 63-64. Rachabathuni’s location identification server merely links the user’s location with the user’s ID. Rachabathuni discloses that “[l]ocation identification can be represented in various ways, it can be a geographical description of a location whereby the location identifier itself forms the data to identify a location, it can be a reference to a geographical description of a location, i.e., just a pointer to other information that can be used to determine the location.” Ex. 1011, 7:49-54.

Third, Petitioner failed to apply the proper construction of “checking data” that it had agreed to in the District Court Litigation. Specifically, Petitioner’s analysis is devoid of any analysis of how the purported checking data of a location identification is “data that the mobile station compares against information from a received signal to determine whether the received signal is a distinctive defining signal.”

Because of these deficiencies, institution should be denied.

C. Claims 2-11 Are Not Obvious Over Any Combination of Putkiranta and Kraufvelin or Rachabathuni and Huomo

Claims 2-11 are dependent upon Claim 1. Therefore, for at least the same reasons as described for Claim 1, the Petition fails to show how Claims 2-11 are rendered obvious over any combination of Putkiranta and Kraufvelin or Rachabathuni and Huomo.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of the Petition in its entirety.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S PRELIMINARY RESPONSE specified in 37 C.F.R. § 42.24 has 2,490 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word for Office 365.

Respectfully submitted,

December 17, 2025

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CERTIFICATE OF SERVICE

A copy of the foregoing Patent Owner's Preliminary Response and Ex. 2008
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