

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

T-MOBILE USA, INC.,
Petitioner,

v.

DALI WIRELESS INC.,
Patent Owner.

IPR2023-00832
Patent 11,006,343 B2

Before KARL D. EASTHOM, SHARON FENICK, and JOHN R. KENNY,
Administrative Patent Judges.

EASTHOM, *Administrative Patent Judge.*

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314
Granting Motion for Joinder
35 U.S.C. § 315(c); 37 C.F.R. § 42.122

I. INTRODUCTION

On March 4, 2023, T-Mobile USA, Inc. (“Petitioner”) filed a Petition (Paper 3, “Pet.”) seeking *inter partes* review of claims 1–22 (the “challenged claims”) of 11,006,343 (Ex. 1001, the “’343 patent”). With the Petition, Petitioner filed a Motion for Joinder (Paper 2, “Motion” or “Mot.”), seeking to join as a party to *Ericsson, Inc., v. Dali Wireless, Inc.*, IPR2022-01345 (the “Ericsson IPR”). Patent Owner, Dali Wireless, Inc., did not timely file an opposition (due May 4, 2023) to the Motion (filed March 4, 2023) or a preliminary response (due July 26, 2023) to the Petition. *See* Paper 6 (Notice of filing date accorded setting preliminary response due date); Paper 7 (Order determining no timely opposition to the Motion).

The Board has authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314(b); 37 C.F.R. § 42.4(a) (2020). Under 35 U.S.C. § 314(a), an *inter partes* review may not be authorized unless the information in the Petition and any preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons that follow, we institute an *inter partes* review as to the challenged claims of the ’343 patent on all grounds of unpatentability presented. We also *grant* Petitioner’s Motion.

A. *Real Party in Interest*

Each party identifies itself as the real party-in-interest. Pet. 73; Paper 4, 1. Petitioner also identifies T-Mobile US, Inc. as a real party-in-interest. Pet. 73.

B. Related Matters

The parties collectively identify IPR2022-01345 and IPR2023-00820 as involving the '343 patent. Pet. 74; Paper 4, 2. The Board recently joined petitioner CommScope Technologies, LLC as a petitioner in the Ericsson IPR. *See* Ericsson IPR, Paper 22.

The parties collectively identify the following related district court (current or past) matters involving the '343 patent: *Dali Wireless, Inc. v. Cellco Partnership*, No. 6:22-cv-00104 (W.D. Tex.); *Dali Wireless, Inc. v. Cellco Partnership*, No. 23-cv-00002 (E.D. Tex.); *Dali Wireless, Inc. v. Verizon Corp. Sys. Grp.*, No. 23-cv-00060 (W.D. Tex.); *Dali Wireless, Inc. v. Ericsson, Inc.*, No. 22-cv-01313 (W.D. Tex.); *Dali Wireless, Inc. v. T-Mobile US, Inc.*, No. 22-cv-00414 (E.D. Tex.); *Dali Wireless, Inc. v. Corning, Inc.* No. 22-cv-1314 (W.D. Tex.) (terminated, Jan. 17, 2023). Pet. 73–74; Paper 4, 1.

C. The '343 Patent (Ex. 1001)

The '343 patent describes a reconfigurable distributed antenna system (DAS) that provides flexibility to manage, control, re-configure, enhance, and facilitate the radio resource efficiency, usage, and performance of a distributed wireless network. Ex. 1001, 4:29–33.

Figure 1, reproduced below, shows an embodiment of the reconfigurable DAS:

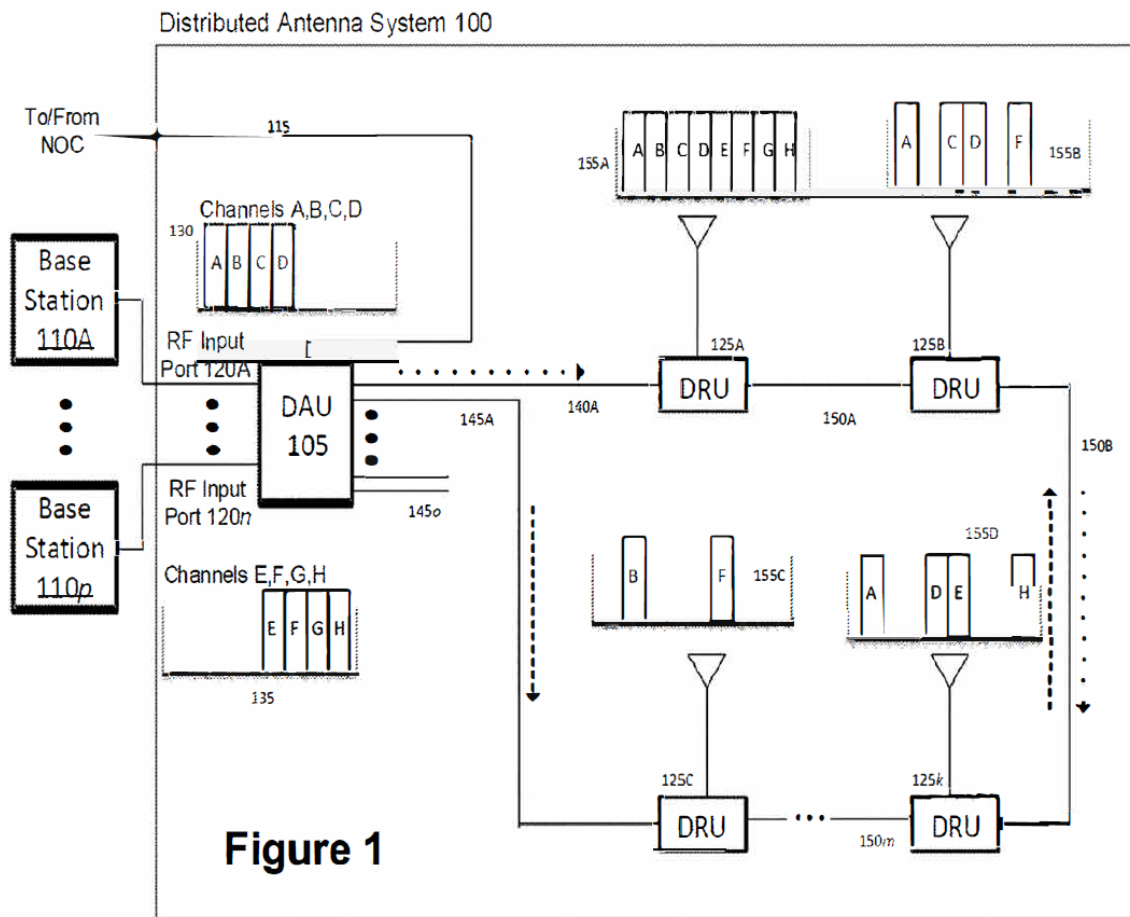


Figure 1 is a block diagram showing the basic structure of reconfigurable distributed antenna system (DAS) 100. Ex. 1001, 4:33–37, code (57). Reconfigurable DAS system 100 employs remote radio units (DRUs, or “interchangeably” RRUs) and digital access units (DAUs). *Id.* at 4:42–55. DAUs serve as interfaces between one or more base stations (BTS) (not depicted) and the RRUs. *Id.* Software settings within DRU 125A and DRU 125B, for example, enable particular carriers to be present in each respective downlink output signal 155A, 155B (e.g., carriers A–H in DRU 125A, carriers A, C, D, and F in DRU 125B). *See id.* at 6:23–65.

The DAU communicates configuration information to set “the appropriate amount of radio resources (such as RF carriers, CDMA codes or TDMA time slots) assigned to a particular DRU or group of DRUs to meet desired capacity and throughput objectives.” Ex. 1001, 12:5–9. In other words, DAUs send configuration information and allocate radio resources as needed for the DRUs. *See id.* at 5:30–33, 8:14–35, 12:58–64 (“[T]he DAU Management Control module can adaptively modify the system configuration to begin to deploy . . . additional radio resources (such as RF carriers, CDMA codes and TDMA time slots) for use by a particular DRU which need those radio resources within its coverage area.”).

In one embodiment, a DAU detects which carriers and corresponding time slots for each carrier are active and determines if a particular downlink carrier exceeds a load by a percentage greater than a predetermined threshold. Ex. 1001, 12:50–64. If the latter occurs, the DAU adaptively modifies the system configuration to deploy additional radio resources for use by a particular DRU that needs those radio resources within its coverage area. *Id.* At the same time, the DAU management control module adaptively modifies the system configuration to slowly remove certain radio resources for use by a particular DRU that no longer needs those radio resources within its coverage area. *Id.* at 12:63–13:2.

D.. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–22 are unpatentable as follows (Pet. 21):

Claim(s) Challenged	35 U.S.C §	Reference(s)/Basis
1–3, 5–10, 12–14, 16–21	103(a) ¹	Wu ²
4, 11, 15, 22	103(a)	Wu, Cannon ³

II. ANALYSIS

A. Institution of Inter Partes Review

We instituted an *inter partes* review in the Ericsson IPR on all challenged claims and all asserted grounds of unpatentability. Ericsson IPR, Paper 13 (institution decision); *see also* Ericsson IPR, Paper 2 (the “Ericsson petition”). Petitioner here challenges the same claims and asserts the same grounds of unpatentability as those on which we instituted the Ericsson IPR. *Compare* Pet. 21, *with* Ericsson IPR, Paper 13, 7; *see also* Mot. 1 (asserting “[t]his Petition and supporting declaration are substantively identical to the petition and declaration submitted in the Ericsson IPR” and “Petitioner here asserts that the same claims are obvious over the same prior art based on the

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103 (effective, March 16, 2013). Petitioner “does not challenge the claimed priority of February 7, 2011” for purposes of the Petition. Pet. 16. Because this priority date is before the effective date of the applicable AIA amendment, the pre-AIA version of § 103 applies for purposes of institution.

² Wu et al., US Pub. No. 2010/0128676 A1, published May 27, 2010, filed Nov. 11, 2009. Ex. 1007.

³ Cannon et al., U.S. Pub. No. US 2010/0177760 A1, published July 15, 2010, filed Jan. 13, 2010. Ex. 1017.

same arguments presented by the same expert as in the Ericsson IPR”). As indicated, Petitioner also relies on the same declarant as did the petition in the Ericsson IPR. Mot. 1; *compare* Ex. 1012 (Corrected Declaration of Henry Houh, Ph.D.), *with* Ericsson IPR, Ex. 1012 (same).

Because the grounds of unpatentability in the instant Petition are identical to those in the Ericsson IPR and for the same reasons stated in our Decision to Institute in the Ericsson IPR, we institute *inter partes* review in this proceeding on the grounds presented in the Petition. *See* Ericsson IPR, Paper 17, 7–45 (analyzing challenges in the Ericsson petition).

B. Motion for Joinder

Joinder in an *inter partes* review is subject to the provisions of 35 U.S.C. § 315(c):

(c) JOINDER.—If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

To join Petitioner to the instituted Ericsson IPR, the Board first determines whether the Petition “warrants” institution under § 314, which we determined above. *See Facebook, Inc. Windy City Innovations, LLC*, 973 F.3d 1321, 1332 (Fed. Cir. 2020). The Board next determines whether to exercise “discretion to decide whether to ‘join as a party’ the joinder applicant,” who is the Petitioner in this proceeding. *Id.* Petitioner timely filed its Motion for Joinder on April 4, 2023 (i.e., within one month after the institution of the Ericsson IPR on March 9, 2023). *See* Mot.; Ericsson IPR, Paper 13; 37 C.F.R. § 42.122(b).

As moving party, Petitioner bears the burden of proving that it is entitled to the requested relief. 37 C.F.R. § 42.20(c). A motion for joinder should (1) set forth the reasons joinder is appropriate; (2) identify any new grounds of unpatentability asserted in the petition; and (3) explain what impact (if any) joinder would have on the trial schedule for the existing review. *See Kyocera Corp. v. SoftView, LLC*, IPR2013-00004, Paper 15 at 4 (PTAB Apr. 24, 2013).

We determine that Petitioner has met its burden of showing that joinder is appropriate because, as set forth above, the Petition (1) is substantially identical to the Ericsson petition, (2) contains the same grounds based on the same evidence, and (3) relies on the same declaration of Henry Houh, Ph.D. (Ex. 1012). Mot. 1, 4. Petitioner represents that joinder will not impact the Ericsson IPR schedule. *Id.* at 5 (listing reasons as to why “joinder will not impact any schedule that may issue or otherwise prejudice the Patent Owner.”). Petitioner also represents that it “Petitioner will maintain only an ‘understudy’ role in the proceeding, if joined.” *Id.* at 6.

Petitioner represents that in its understudy role, it agrees that the following conditions will apply:

- (i) Petitioner will “require[]” “no additional discovery”;
- (ii) Petitioner will submit “no further briefing . . . except (a) to address any specific points of disagreement with lead petitioner (in which case such additional briefing would be limited to three pages), and (b) to the extent Patent Owner makes any allegations or arguments directed against Petitioner . . . specifically (in which case such additional briefing would be limited to 5 pages)”;
- (iii) Petitioner “will not receive any direct, cross, or re-direct

examination time beyond what is permitted . . . for the IPR2022-01345 petitioner”;

(iv) at any oral hearing, Petitioner will “not request any additional time to independently argue . . . or attempt to submit its own demonstratives . . . except to address any points of disagreement with lead petitioner or to address any Petitioner specific allegations as set out in point (ii) above, and in which case Petitioner . . . would reserve the right to request up to five minutes to address such issues.”

Mot. 6–7.

Petitioner further represents that Ericsson (currently the lead petitioner) does not oppose Petitioner’s Motion. Mot. 1. As indicted above, Patent Owner did not timely file an opposition to the Motion. *See* 37 C.F.R. § 42.23 (setting default filing times); Paper 7 (determining time for filing opposition expired).

We determine above that the Petition warrants the institution of an *inter partes* review. Under these circumstances, we agree with Petitioner that joinder is appropriate and will not unduly impact the ongoing trial in the Ericsson IPR.⁴ We limit Petitioner’s participation in the Ericsson IPR as follows: (1) the lead petitioner is responsible for all petitioner filings in the proceeding until such time that it is no longer an entity in the proceeding, and (2) Petitioner is bound by all filings by the lead petitioner in the proceeding, except for (a) filings regarding termination or settlement, and (b) filings where Petitioner receives permission to file an independent paper. Petitioner must obtain prior Board authorization to file any paper or take any

⁴ The original parties in IPR2022-01345 recently filed a motion to terminate based on settlement. *See* Ericsson IPR, Papers 19, 20; Paper 7, 2–3 (discussing same).

action on its own in the proceeding, so long as the lead petitioner remains as a non-terminated petitioner in the proceeding. In the event the Board terminates Ericsson as a party in the Ericsson IPR, Petitioner shall take on an understudy role relative to joined Petitioner CommScope Technologies, LLC under the same conditions as outlined with respect to the lead petitioner above (*see supra* note 4; § I.B; Ericsson IPR, Papers 19, 20, 22).

This arrangement promotes the just and efficient administration of the ongoing trial in the Ericsson IPR, and protects the interests of Ericsson as original petitioner in IPR2022-01345 and of Patent Owner.

III. CONCLUSION

For the foregoing reasons, we institute *inter partes* review of the challenged claims of the '343 patent based on the grounds of unpatentability set forth in the Petition. We grant Petitioner's Motion for Joinder and join Petitioner to IPR2022-01345, with the limitations set forth herein.

IV. ORDER

Accordingly, it is

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 1–22 of the '343 patent on all the grounds set forth in the Petition;

FURTHER ORDERED that, pursuant to 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122, Petitioner's Motion for Joinder is granted, and Petitioner is joined as a petitioner in IPR2022-01345, subject to the above-described limitations on Petitioner's participation in that proceeding;

FURTHER ORDERED that the asserted grounds of unpatentability on which the Board instituted *inter partes* review in IPR2022-01345 are unchanged and remain the only instituted grounds;

FURTHER ORDERED that the Scheduling Order in IPR2022-01345, and any modifications thereto, shall govern the schedule of the proceeding;

FURTHER ORDERED that all further filings are to be made in IPR2022-01345;

FURTHER ORDERED that the case caption in IPR2022-01345 for all further submissions shall be modified to add T-Mobile USA, Inc. as a named Petitioner via footnote indicating the joinder of Petitioner as a party to that proceeding, as indicated in the attached sample case caption;⁵ and

FURTHER ORDERED that a copy of this Decision shall be entered into the record in IPR2023-01345.

⁵ The parties shall modify the caption as appropriate in the event the Board terminates Ericsson—i.e., replacing Ericsson Inc. with CommScope Technologies, LLC.

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Sample Case Caption

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⁶ The Board joined T-Mobile USA, Inc. and CommScope Technologies, LLC as (Petitioner) parties to this proceeding.