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Paper 12
Entered: May 6, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UBIQUITI INC.,
Petitioner,

v.

XR COMMUNICATIONS LLC D/B/A VIVATO TECH.,
Patent Owner.

IPR2024-00148
Patent 10,594,376 B2

Before BARBARA A. PARVIS, JAMES J. MAYBERRY, and KARA L. SZPONDOWSKI, *Administrative Patent Judges.*

MAYBERRY, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

On November 10, 2023, Ubiquiti Inc. ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–34 (the "Challenged Claims") of U.S. Patent No. 10,594,376 B2 (Ex. 1001, the "'376 patent"). Paper 1 ("Pet."), 1. Concurrently, Petitioner filed a Motion for Joinder pursuant to 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) (2023), seeking to be joined as a party to IPR2022-00613 (the "'613 IPR"), which also involved a petition challenging claims 1–34 of the '376 patent. Paper 3, 1; *see also* '613 IPR, Paper 12 (providing the Decision on Institution).

XR Communications LLC ("Patent Owner") filed a Preliminary Response to the Petition, opposing joinder.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (permitting the Board to institute trial on behalf of the Director). For the reasons that follow, we determine that joinder is improper and we deny the joinder motion. Consequently, the Petition is not timely under 35 U.S.C. § 315(b) and we deny the Petition as time-barred.

B. Real Parties-in-Interest

Petitioner identifies itself as the real party-in-interest. Pet. 90. Patent Owner identifies itself as the real party-in-interest. Paper 7 (Patent Owner's Mandatory Notices), 1.

C. Related Matters

Petitioner identifies the following litigations as matters related to the '376 patent, all of which were filed in the U.S. District Court for the Central District of California on June 16, 2021: *XR Communications, LLC v. Aruba Networks, LLC.*, No. 2:21-cv-04912; *XR Communications, LLC v. Belkin*

International, Inc., No. 2:21-cv-04914; *XR Communications, LLC v. Netgear, Inc.*, No. 2:21-cv-04942; *XR Communications, LLC v. D-Link Systems, Inc.*, No. 8:21-cv-01063; *XR Communications, LLC v. Netgear, Inc.*, No. 8:21-cv-01064; and *XR Communications, LLC v. Ubiquiti Networks, Inc.*, No. 8:21-cv-01065. Pet. 90–91. Petitioner indicates that all of these cases were consolidated into *XR Communications, LLC v. D-Link Systems, Inc.*, No. 8:17-cv-00596, on June 28, 2021. *Id.* at 90 n.16.

Petitioner also identifies the following litigations as matters related to the '376 patent, all of which were filed in the U.S. District Court for the Western District of Texas on June 16, 2021: *XR Communications, LLC v. Amazon.com, Inc., Amazon.com Services LLC et al.*, No. 6:21-cv-0619-ADA; *XR Communications, LLC v. ASUSTek Computer Inc.*, No. 6:21-cv-0622-ADA; *XR Communications, LLC v. Cisco Systems, Inc. et al.*, No. 6:21-cv-0622-ADA; *XR Communications, LLC v. Google LLC*, No. 6:21-cv-0625-ADA; and *XR Communications, LLC v. Samsung Electronics Co. Ltd.*, No. 6:21-cv-0626-ADA (W.D. Tex.). Pet. 91.

Patent Owner identifies the following litigations as matters related to the '376 patent: *XR Communications, LLC v. Ubiquiti Networks, Inc.*, Case No. 8-21-cv- 01065 (C.D. Cal.); *XR Communications, LLC v. Belkin International, Inc.*, Case No. 2-21-cv- 04914 (C.D. Cal.); *XR Communications, LLC v. ASUSTek Computer Inc.*, Case No. 6:21-cv-00622-ADA (W.D. Tex.); *XR Communications LLC v. AT&T Inc. et al*, Case No. 2-23-cv-00202 (E.D. Tex.); *XR Communications v. Verizon Communications, Inc. and Cellco Partnership d/b/a Verizon Wireless*, Case No. 2-23-cv-00203 (E.D. Tex.); and *XR Communications LLC v. T-Mobile USA, Inc.*, Case No. 2-23-cv-00204 (E.D. Tex.). Paper 7, 1.

Petitioner also identifies IPR2022-00613, IPR2023-00174, and IPR2023-00136[1] as proceedings at the Office related to the '376 patent. Pet. 91.

D. The '376 Patent

The '376 patent, titled "Directed Wireless Communication," issued March 17, 2020, from application US 15/486,245. Ex. 1001, codes (54), (45), (22). The '376 patent ultimately claims priority to a provisional application, US 60/423,660, filed on November 4, 2002. *Id.* at code (60).

The '376 patent "relates to directed wireless communication." Ex. 1001, 1:20–21. According to the '376 patent, wired networks have high bandwidth and data rates but constrain the range of movement for devices. *Id.* at 1:25–30. The '376 patent explains that wireless networks are more accommodating for the movement of a user but have relatively low bandwidth and data rates. *Id.* at 1:35–43. The '376 patent states that many conventional wireless communication systems and networks use omni-directional antennas that transmit equally in all directions. *Id.* at 1:51–57. The '376 patent further explains that omni-directional antennas have limitations because they have limited transmission ranges and their electromagnetic interference with transmissions is unmanaged, which can cause interference with other devices operating in the same frequency band within a transmission coverage area. *Id.* at 1:60–67.

The '376 patent therefore describes directed wireless communication that uses directed communication beams emanated from an antenna

[1] The Petition duplicates "IPR2023-00174" in its listing of proceedings. This appears to be a typographical error, with Petitioner intending to identify IPR2023-00136.

assembly. Ex. 1001, 2:7–15. Figure 2, reproduced below, "illustrates an exemplary directed wireless communication system." *Id.* at *2*:24–25.

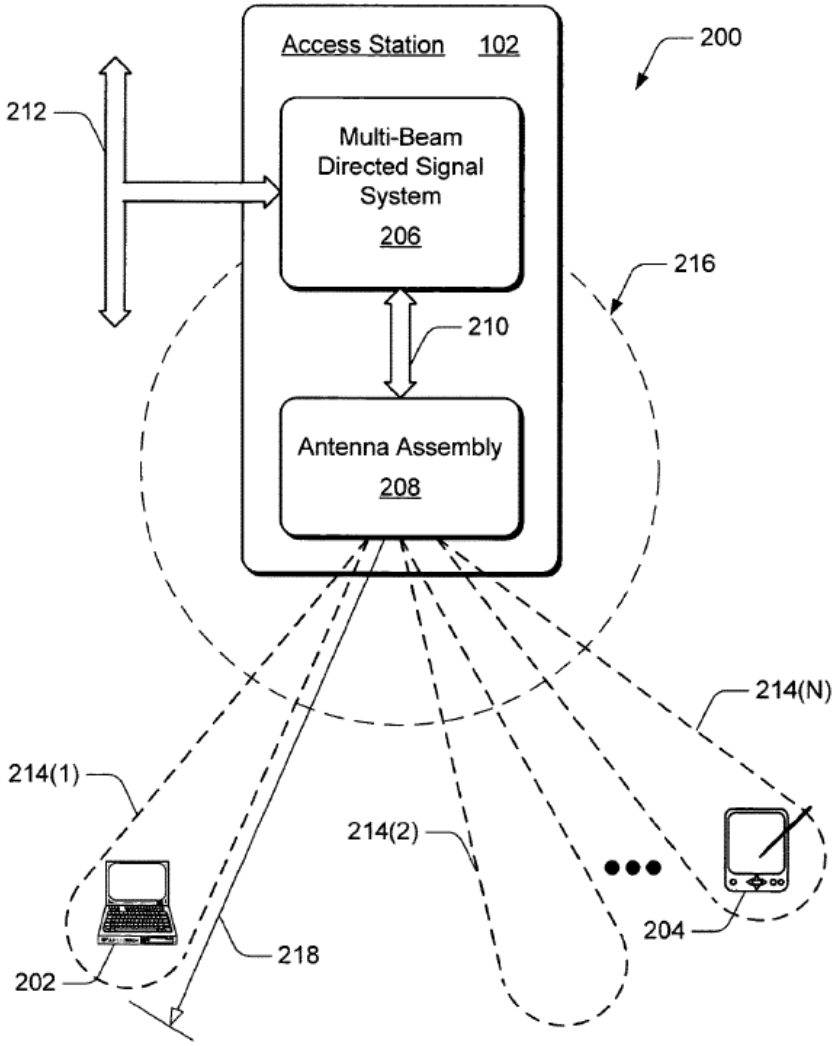

Fig. 2

As shown, "antenna assembly 208 can be implemented as two or more antennas . . . to emanate multiple directed communication beams 214(1), 214(2), . . . , 214(N)." Ex. 1001, 4:54–57. "[C]lient device 202 can communicate via directed communication beam 214(1) with a first channel of the multi-beam directed signal system 206, and client device 204 can

communicate via directed communication beam[] 214(N) with a second channel of the multi-beam directed signal system 206." *Id.* at 5:16–21.

Figure 3, reproduced below, "illustrates an exemplary communication beam array [that] can be generated with the exemplary directed wireless communication system shown in F[igure] 2." Ex. 1001, 2:26–28.

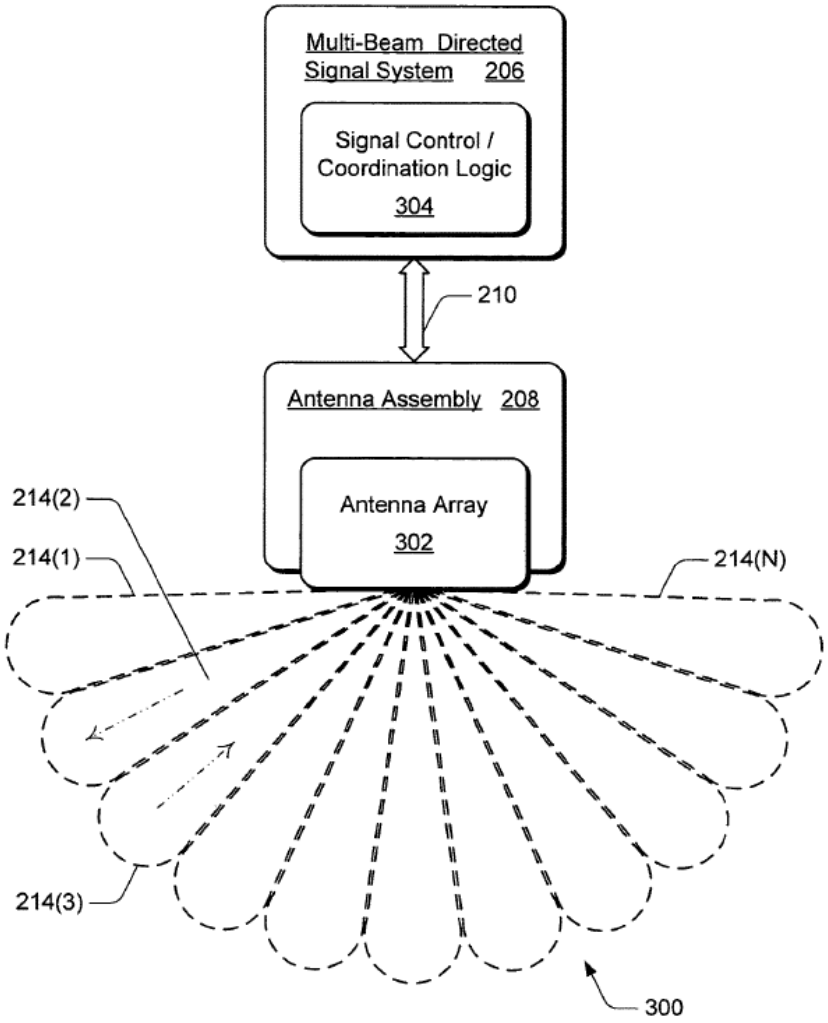

Fig. 3

Communication beam array 300 includes "directed communication beams 214(1), 214(2), . . . 214(N) that emanate from an antenna array 302 which is part of the antenna assembly 208." *Id.* at 5:56–59. The '376 patent describes this arrangement as producing "a transmission pattern that

selectively places transmission nulls and/or peaks in certain directions within an applicable coverage area." *Id.* at 5:59–67.

E. Challenged Claims

The Petition challenges claims 1–34. Pet. 1. Claims 1, 12, 22, and 32 are independent claims. Claim 1, which we reproduce below, is representative of the claimed subject matter.

> 1. A data-communications networking apparatus, comprising:
>
> a processor configured to:
>
> generate a probing signal for transmission to at least a first client device and a second client device;
>
> generate a first data stream for transmission to the first client device; and
>
> generate a second data stream for transmission to the second client device; and
>
> a transceiver operatively coupled to the processor and configured to:
>
> transmit the probing signal to at least the first client device and the second client device via a smart antenna;
>
> wherein the smart antenna is operatively coupled to the transceiver and comprises a first antenna element and a second antenna element;
>
> wherein one or more of the processor, the transceiver, or the smart antenna is further configured to:
>
> receive a first feedback information from the first client device in response to the transmission of the probing signal;
>
> receive a second feedback information from the second client device in response to the transmission of the probing signal;
>
> determine where to place transmission peaks and transmission nulls within one or more spatially distributed patterns of electromagnetic signals based in part on the first and the second feedback information;
>
> transmit the first data stream to the first client device via the one or more spatially distributed patterns of electromagnetic signals; and

> transmit the second data stream to the second client device via the one or more spatially distributed patterns of electromagnetic signals;
>
> wherein transmission of the first data stream and transmission of at least part of the second data stream occur at the same time; and
>
> wherein the one or more spatially distributed patterns of electromagnetic signals are configured to exhibit a first transmission peak at a location of the first client device and a second transmission peak at a location of the second client device.

Ex. 1001, 32:30–33:5. Independent claims 12, 22, and 32 recite substantially the same subject matter as claim 1. *Compare id.* at 32:30–33:5, *with* 34:1–42, 35:30–36:11, 37:8–38:23; *see also* Pet. 20 ("The four independent claims have the same basic format—limitations directed to a processor and its functions, limitations directed to a transceiver and its functions, and limitations directed to functions performed in either the processor, transceiver, or a smart antenna."). Independent claims 22 and 32 also recite the content of feedback information.[2] Independent claim 32 also recites "a memory operatively coupled to one or more of the processor or the transceiver[,] wherein a routing table is stored in the memory." *See* Ex. 1001, 37:24–27 (the "memory" limitations of claim 32).

[2] Claim 22 recites "wherein the first feedback information comprises one or more of: a first amplitude information, a first phase information, a first routing information, or a first index to a routing table" and "wherein the second feedback information comprises one or more of: a second amplitude information, a second phase information, a second routing information, or a second index to a routing table." Ex. 1001, 35:51–54, 57–60. Claim 32 includes nearly identical recitations. *See id.* at 37:32–35, 38:1–4.

F. Prior Art and Asserted Grounds

Petitioner asserts that the Challenged Claims are unpatentable based on two grounds:

Claims Challenged	35 U.S.C. §	References/Basis
1–9, 12–18, 22–34	103(a)	Gerlach,[3] Barratt[4]
10, 11, 19–21	103(a)	Gerlach, Barratt, Okamoto[5]

Pet. 2.

Petitioner relies on the declaration testimony of Zhi Ding, Ph.D. (Ex. 1003) in support of these grounds.

Petitioner contends that these are the same grounds as instituted in the '613 IPR. Paper 3, 5 ("Ubiquiti seeks review of the '376 patent in the instant Petition are the same as those upon which the Board has already instituted review in IPR2022-00613").

[3] US 5,471,657; issued Nov. 28, 1995 (Ex. 1005, "Gerlach").
[4] US 5,592,490; issued Jan. 7, 1997 (Ex. 1006, "Barratt").
[5] Garret Okamoto et al., *Evaluation of Beamforming Algorithm Effectiveness for the Smart Wireless LAN System*, 3 VTC '98. 48TH IEEE VEHICULAR TECHNOLOGY CONFERENCE, PATHWAY TO GLOBAL WIRELESS REVOLUTION 1675–79 (1998) (Ex. 1007, "Okamoto").

II. ANALYSIS - JOINDER UNDER 35 U.S.C. § 315(C)

Petitioner moves to join the '613 IPR. Paper 3, 1. Joinder in *inter partes* review proceedings 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 parties review under section 314.

A threshold issue for joinder is that there must be an *inter partes* review to which the party seeking joinder can join. *See* 35 U.S.C. § 315(c) (giving the Director discretion to join the moving party to "that inter partes review," that is, to the *inter partes* review that has been instituted).[6]

The '613 IPR was *terminated* on October 3, 2023, more than one month before Petitioner filed the Petition and motion for joinder. Understanding this hurdle, Petitioner moves for us to reopen the '613 IPR proceeding. Paper 2; *see also* Paper 3, 1 ("Ubiquiti is filing this motion for joinder concurrently with a motion for leave to file a motion to reopen IPR2022-00613, [and] a petition for *inter partes* review of the '376 patent."). Patent Owner opposes the motion. Paper 9. Petitioner replied to the opposition. Paper 10. In an Order filed concurrently with this Decision, we deny Petitioner's motion to reopen the '613 IPR proceeding.

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[6] A motion for joinder must be filed "no later than one month after the institution date of any *inter partes* review for which joinder is requested." 37 C.F.R. § 42.122(b). Petitioner files a motion requesting we waive this time limit. Paper 4. As explained in an Order entered concurrently with this Decision (and as will be evident from our Decision here), we dismiss the motion requesting we waive the time limit for filing a joinder motion as moot. *See* Paper 11.

Paper 11. As such, there is no *inter partes* review to which Petitioner can join.

Accordingly, we deny Petitioner's joinder motion.

III. ANALYSIS - 35 U.S.C. § 315(B) TIME BAR

Under 35 U.S.C. § 315(b), an *inter partes* review "may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." Petitioner was served with a complaint alleging infringement of the '376 patent on June 21, 2021—over two years before filing the present Petition. *See* Paper 9, 2; *see also* Ex. 3001 (providing proof of service); Paper 10 (not disputing Patent Owner's contention regarding the service date).

The AIA statute and our rules permit, at the discretion of the Director, a party to be joined to an *inter partes* review proceeding even if that party filed its petition after the one-year time bar. *See* 35 U.S.C. § 315(b) ("The time limitation set forth in the preceding sentence shall not apply to a request for joinder under subsection (c)."); 37 C.F.R. § 42.122(b) ("The time period set forth in § 42.101(b) [that is, the one-year time bar] shall not apply when the petition is accompanied by a request for joinder."). However, as we determine above, we deny Petitioner's motion for joinder, as there is no *inter partes* review proceeding to join. As such, the provision allowing an otherwise time-barred petition is not implicated here.

Accordingly, Petitioner's Petition is time-barred under 35 U.S.C. § 315(b).

IV. CONCLUSION

We deny Petitioner's motion for joinder, as the '613 IPR proceeding, to which Petitioner seeks joinder, has been terminated and will not be reopened. *See* Paper 11. Also, because the Petition was filed more than one year after Petitioner was served with a complaint for infringing the '376 patent, the Petition is time-barred under 35 U.S.C. § 315(b), and is denied.

V. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 315(c), we deny Petitioner's motion for joinder; and

FURTHER ORDERED that an *inter partes* is not instituted.

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