

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMMSCOPE, INC.,
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

IPR2023-00068
Patent 7,844,882 B2

Before LYNNE E. PETTIGREW, ROBERT J. WEINSCHENK, and
KEVIN C. TROCK, *Administrative Patent Judges*.

PETTIGREW, *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

Petitioner, CommScope, Inc., filed a Petition for *inter partes* review of claims 9–16 of U.S. Patent No. 7,844,882 B2 (Ex. 1001, “the ’882 patent”). Paper 2 (“Pet.”). Patent Owner, TQ Delta, LLC., filed a Preliminary Response. Paper 13. Petitioner also file a Motion for Joinder (Paper 3, “Mot.”) requesting that Petitioner be joined to the *inter partes* review in IPR2022-00664 (“the ’664 IPR”). Patent Owner filed an Opposition (Paper 9) to the Motion, Petitioner filed a Reply to the Opposition (Paper 10), and Patent Owner filed a Sur-reply (Paper 12). For the reasons below, the Motion for Joinder is denied as moot, and the Petition is denied because it is time-barred under 35 U.S.C. § 315(b).

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies CommScope Inc., CommScope Holding Company, Inc., ARRIS US Holdings, Inc., ARRIS Solutions, Inc., ARRIS Technology, Inc., and ARRIS Enterprises, Inc. as the real parties in interest. Pet. 76. Patent Owner identifies itself as the only real party in interest. Paper 7, 1 (Patent Owner’s Mandatory Notices).

B. Related Matters

The parties indicate that the ’882 patent is the subject of the following proceedings: (1) *TQ Delta, LLC v. 2Wire, Inc.*, Case No. 1:13-cv-01835 (D. Del.); (2) *TQ Delta, LLC v. ADTRAN, Inc.*, Case No. 1:14-cv-00954 (D. Del.); (3) *ADTRAN, Inc. v. TQ Delta, LLC*, Case No. 1:15-cv-00121 (D. Del.) (4) *TQ Delta, LLC v. Nokia Corp.*, Case No. 2:21-cv-00309 (E.D. Tex.); and (5) *TQ Delta, LLC v. CommScope Holding Company, Inc.*, Case No. 2:21-cv-00310 (E.D. Tex.). Pet. 76; Paper 7, 1–2. The parties also

indicate that the '882 patent is the subject of the '664 IPR. Pet. 1; Paper 7, 2.

C. Overview of the '882 Patent

The '882 patent relates to “memory sharing in communication systems.” Ex. 1001, 1:18–19. The '882 patent describes a system designed to allocate a first portion of a shared memory to an interleaver and a second portion of the shared memory to a deinterleaver. *Id.* at 5:33–39. The system may determine a maximum amount of shared memory that can be allocated to an interleaver or a deinterleaver. *Id.* at 2:1–4. The system may determine an amount of memory required to interleave or deinterleave a first plurality of Reed-Solomon (RS) coded data bytes and an amount of memory required to interleave or deinterleave a second plurality of RS coded data bytes and allocate the shared memory accordingly. *See id.* at 6:20–7:3.

D. Illustrative Claim

Challenged claims 9 and 13 are independent. Claim 9 is illustrative of the claimed subject matter and is reproduced below:

9. A system that allocates shared memory comprising:
a transceiver that performs:
- transmitting or receiving a message during initialization specifying a maximum number of bytes of memory that are available to be allocated to an interleaver;
 - determining an amount of memory required by the interleaver to interleave a first plurality of Reed Solomon (RS) coded data bytes within a shared memory;
 - allocating a first number of bytes of the shared memory to the interleaver to interleave the first plurality of Reed Solomon (RS) coded data bytes for transmission at a first data rate, wherein the allocated memory for the interleaver does not exceed the maximum number of bytes specified in the message;

allocating a second number of bytes of the shared memory to a deinterleaver to deinterleave a second plurality of RS coded data bytes received at a second data rate; and

interleaving the first plurality of RS coded data bytes within the shared memory allocated to the interleaver and deinterleaving the second plurality of RS coded data bytes within the shared memory allocated to the deinterleaver, wherein the shared memory allocated to the interleaver is used at the same time as the shared memory allocated to the deinterleaver.

Ex. 1001, 11:39–12:12.

E. Asserted Grounds of Unpatentability

Petitioner asserts that the challenged claims are unpatentable based on the following grounds (Pet. 2):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
9–16	103(a) ¹	Mazzoni, ² VDSL1 ³
9–16	103(a)	VDSL1, Fadavi-Ardekani ⁴

III. ANALYSIS

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.”

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. Because the ’882 patent was filed before this date, we refer to the pre-AIA version of § 103. *See* Ex. 1001, code (22).

² U.S. Patent No. 7,269,208 B2, filed July 11, 2001, issued Sept. 11, 2007 (Ex. 1005, “Mazzoni”).

³ ETSI TS 101 270-2 V1.2.1 Very High Speed Digital Subscriber Line, published July 24, 2003 (Ex. 1007, “VDSL1”).

⁴ U.S. Patent No. 6,707,822 B1, issued Mar. 16, 2004 (Ex. 1006, “Fadavi-Ardekani”).

Patent Owner served 2Wire, Inc. (“2Wire”), a privy of Petitioner,⁵ with a complaint alleging infringement of the ’882 patent in February 2014. Ex. 2001; Ex. 2002. Patent Owner served Petitioner with a complaint alleging infringement of the ’882 patent on August 17, 2021. Ex. 1027; Ex. 3001. Petitioner filed the Petition more than one year later on October 26, 2022. Pet. 79. Petitioner does not dispute those facts, but instead relies on its request to join the ’664 IPR to avoid the time limit in 35 U.S.C. § 315(b). Pet. 1 (“Because . . . this is a copycat petition . . . accompanied by a motion for joinder . . . , the time bar under § 315(b) does not apply to this IPR.”); Mot. 8–10 (“the one-year time limitation does not apply to a request for joinder”).

The ’664 IPR, however, has been terminated. *Nokia of Am. Corp. v. TQ Delta, LLC*, IPR2022-00664, Paper 24 at 3 (PTAB Dec. 8, 2022). Thus, there no longer is a pending proceeding in the ’664 IPR for Petitioner to join. As a result, Petitioner’s request to join the ’664 IPR is moot, and the Petition is not timely under 35 U.S.C. § 315(b).

IV. CONCLUSION

The Motion for Joinder is denied as moot because the ’664 IPR already has been terminated, and the Petition is denied because it was not filed within the time period set forth in 35 U.S.C. § 315(b).

V. ORDER

Accordingly, it is

ORDERED that the Motion for Joinder is *denied* as moot; and

⁵ The Board determined that 2Wire is a privy of Petitioner in a related case. *CommScope, Inc. v. TQ Delta, LLC*, IPR2022-00352, Paper 13 at 15–17 (PTAB Aug. 19, 2022). Petitioner does not dispute that it is in privity with 2Wire in this case. See Pet. 1; Mot. 8–10.

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FURTHER ORDERED that that the Petition is *denied*, and no trial is instituted.

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