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Paper 15
Date: April 25, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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COMMSCOPE, INC.
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

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IPR2023-00066
Patent 7,836,381 B1

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

WEINSCHENK, *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*

CommScope, Inc. ("Petitioner") filed a Petition (Paper 3, "Pet.") requesting an *inter partes* review of claims 1–8 ("the challenged claims") of U.S. Patent No. 7,836,381 B1 (Ex. 1001, "the '381 patent"). TQ Delta, LLC ("Patent Owner") filed a Preliminary Response (Paper 14, "Prelim. Resp.") to the Petition. Petitioner also filed a Motion for Joinder (Paper 1, "Mot.") requesting that Petitioner be joined to the *inter partes* review in IPR2022-00665 ("the '665 IPR"). Patent Owner filed an Opposition (Paper 10) to the Motion for Joinder, Petitioner filed a Reply (Paper 11) to the Opposition, and Patent Owner filed a Sur-reply (Paper 13) to the Reply. For the reasons below, the Motion for Joinder is denied as moot, and the Petition is denied under 35 U.S.C. § 315(b).

## *B. Real Parties in Interest*

Petitioner identifies the following real parties in interest: 1) CommScope, Inc.; 2) CommScope Holding Company, Inc.; 3) ARRIS US Holdings, Inc.; 4) ARRIS Solutions, Inc.; 5) ARRIS Technology, Inc.; and 6) ARRIS Enterprises, Inc. Pet. 77. Patent Owner identifies itself as the only real party in interest. Paper 8, 1.

## *C. Related Matters*

The parties indicate that the '381 patent is the subject of the following district court cases: 1) *TQ Delta, LLC v. 2Wire, Inc.*, No. 1:13-cv-01835 (D. Del.); 2) *TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-cv-00954 (D. Del.); and 3) *ADTRAN, Inc. v. TQ Delta, LLC*, No. 1:15-cv-00121 (D. Del.). Pet. 77; Paper 8, 1–2. The parties also indicate that the '381 patent is the subject of the '665 IPR. Pet. 1; Paper 8, 2.

*D. The '381 Patent*

The '381 patent relates to "memory sharing in communication systems." Ex. 1001, 1:19–21. The '381 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 2:3–6. 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.

*E. Illustrative Claim*

Of the challenged claims, claims 1 and 5 are independent. Claim 1 is reproduced below.

> 1. A non-transitory computer-readable information storage media having stored thereon instructions, that if executed by a processor, cause to be performed a method for allocating shared memory in a transceiver comprising:
>
> transmitting or receiving, by the transceiver, a message during initialization specifying a maximum number of bytes of memory that are available to be allocated to an interleaver;
>
> determining, at the transceiver, 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, in the transceiver, 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, in the transceiver, 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, 10:43–11:4.

*F. Evidence*

Petitioner submits the following evidence:

| Evidence | Exhibit No. |
|---|---|
| Declaration of Richard Wesel ("Wesel Declaration") | 1003 |
| Mazzoni, US 7,269,208 B2, issued Sept. 11, 2007 ("Mazzoni") | 1005 |
| Fadavi-Ardekani, US 6,707,822 B1, issued Mar. 16, 2004 ("Fadavi-Ardekani") | 1006 |
| European Telecommunications Standards Institute, ETSI TS 101 270-2 V1.2.1 (2003) ("VDSL1") | 1007 |

*G. Asserted Grounds*

Petitioner asserts that the challenged claims are unpatentable on the following grounds:

| Claims Challenged | 35 U.S.C. § | References/Basis |
|---|---|---|
| 1–8 | 103 | Mazzoni, VDSL1 |
| 1–8 | 103 | VDSL1, Fadavi-Ardekani |

## II. 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." Patent Owner served 2Wire, Inc. ("2Wire"), a privy of Petitioner,[1] with a complaint alleging infringement of the '381 patent in February 2014. Ex. 2001; Ex. 2002. Petitioner filed the Petition more than one year later on November 1, 2022. Pet. 79. Petitioner does not dispute those facts, but instead relies on its request to join the '665 IPR to avoid the time limit in Section 315(b). Pet. 1 ("Because . . . CommScope will file an accompanying motion for joinder . . . , the time bar under § 315(b) does not apply."); Mot. 8–10 ("the one-year time limitation does not apply to a request for joinder").

The '665 IPR, however, has been terminated. *Nokia of Am. Corp. v. TQ Delta, LLC*, IPR2022-00665, Paper 23 at 3 (PTAB Dec. 8, 2022). Thus, there no longer is a pending proceeding in the '665 IPR for Petitioner to join. As a result, Petitioner's request to join the '665 IPR is moot, and the Petition is not timely under Section 315(b).

## III. CONCLUSION

The Motion for Joinder is denied as moot because the '665 IPR already has been terminated, and the Petition is denied because it was not filed within the time period set forth in Section 315(b).

## IV. ORDER

It is hereby

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

[1] 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.

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

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