Trials@uspto.gov
571-272-7822

Paper 7
Entered: June 22, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARRIS GROUP, INC.,
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

Case IPR2016-00428
Patent 7,835,430 B2

Before SALLY C. MEDLEY, KALYAN K. DESHPANDE, and TREVOR M. JEFFERSON, *Administrative Patent Judges.*

MEDLEY, *Administrative Patent Judge*.

DECISION
Decision Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Arris Group, Inc. ("Petitioner") filed a Petition requesting an *inter partes* review of claims 1–6 of U.S. Patent No. 7,835,430 B2 (Ex. 1001, "the '430 patent"). Paper 1 ("Pet."). TQ Delta, LLC ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." After considering the Petition, the Preliminary Response, and associated evidence, we conclude that Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing unpatentability of at least one of the challenged claims. Thus, we do not authorize institution of an *inter partes* review of claims 1–6 of the '430 patent.

A. Related Proceedings

Petitioner indicates that the '430 patent is the subject of proceedings, including *TQ Delta LLC v. 2Wire Inc.*, Case No. 1-13-cv-01835 (D. Del.). Pet. 3.

B. The '430 Patent (Ex. 1001)

The '430 patent discloses systems and methods for reliably exchanging diagnostic and test information between transceivers over a digital subscriber line in the presence of disturbances. Ex. 1001, 1:44–47. The systems and methods include the use of a diagnostic link mode in the communication of diagnostic information from a remote terminal (RT) transceiver or modem to the central office (CO) transceiver or modem, where either modem transmits a message to the other modem to enter diagnostic link mode. *Id.* at 2:44–48, 3:19–29. Each modem includes a

transmitter section for transmitting data and a receiver section for receiving data, and is of the discrete multitone (DMT) type (the modem transmits data over a multiplicity of subchannels of limited bandwidth). *Id.* at 1:58–62. In diagnostic mode, the RT modem sends diagnostic and test information as bits that are modulated to the CO modem. *Id.* at 3:32–34. One described modulation technique includes Differential Phase Shift Keying (DPSK) on a subset or all the carriers, as specified in ITU standard G.994.1, higher order Quadrature Amplitude Modulation (QAM) (>1 bit per carrier). *Id.* at 3:38–41.

Figure 1 illustrates the additional modem components associated with the diagnostic link mode, and is reproduced below:

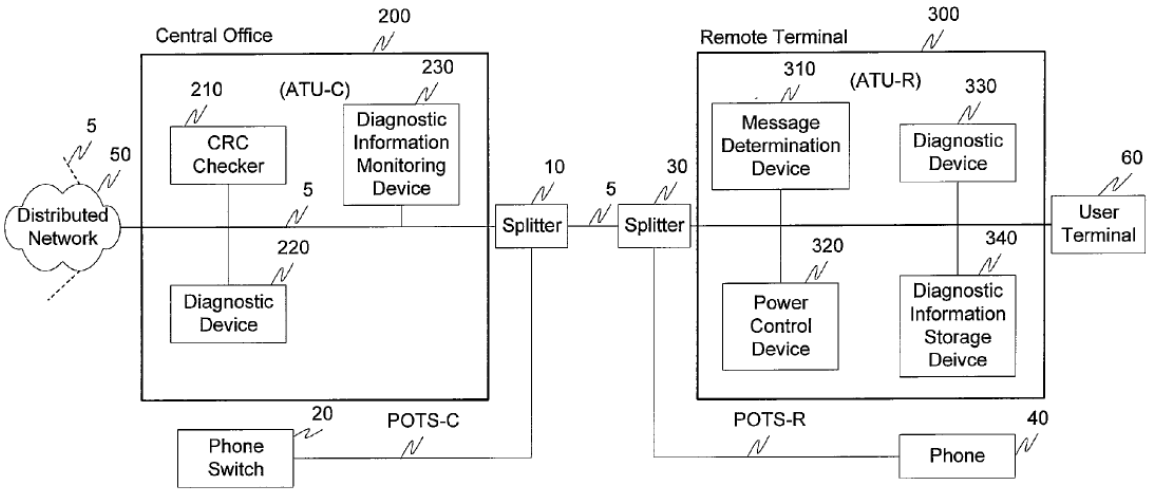

Fig. 1

Figure 1 illustrates a diagnostic mode system, where CO modem 200 and RT modem 300 are connected via link 5 to splitter 10 for a phone switch 20, and a splitter for a phone 40. *Id.* at 4:48–62. CO modem 200 includes CRC checker 210, diagnostic device 220, and diagnostic information monitoring device 230. *Id.* RT modem includes message determination device 310,

power control device 320, diagnostic device 330, and diagnostic information storage device 340. *Id.*

C. Illustrative Claim

Claims 1–6 are independent claims. Claim 1 is reproduced below.

> 1. A transceiver capable of transmitting test information over a communication channel using multicarrier modulation comprising:
>
> a transmitter portion capable of transmitting a message, wherein the message comprises one or more data variables that represent the test information, wherein bits in the message are modulated onto DMT symbols using Quadrature Amplitude Modulation (QAM) with more than 1 bit per subchannel and wherein at least one data variable of the one or more data variables comprises an array representing frequency domain received idle channel noise information.

Ex. 1001, 8:33–44.

D. The Alleged Grounds of Unpatentability

The information presented in the Petition sets forth proposed grounds of unpatentability of claims 1–6 of the '430 patent under 35 U.S.C. § 103(a) as follows (*see* Pet. 5):[1]

References	Claims Challenged
T2500 Manual[2] and Held-DataComDev4[3]	1–6

[1] Petitioner supports its challenges with the Declaration of Lance McNally. Ex. 1002.
[2] Telebit T2500 Reference Manual (90100-02 Rev. C) (1990) (Ex. 1004) ("T2500 Manual").
[3] Data Communications Networking Devices: Operation, Utilization and LAN and WAN Internetworking (4th ed. 1990) (Ex. 1006) ("Held-DataComDev4").

References	Claims Challenged
Hughes-Hartogs,[4] Baran,[5] and Frenkel[6]	1–6

II. ANALYSIS

A. 35 U.S.C. § 315(b)

Petitioner represents, at the time of filing the Petition, that Petitioner does not own the '430 patent and that "[n]either Petitioner nor any real party-in-interest filed a civil action challenging validity of a claim in the '430 Patent." Pet. 4. Petitioner further represents that "[n]one of the Petitioner nor any real party-in-interest or privy of the Petitioner, has been served with a complaint alleging infringement of the '430 Patent." *Id.* at 4–5.

Patent Owner argues that the Petition should be denied because "Petitioner Arris is simply the successor-in-interest of another company, 2Wire, Inc. [(2Wire)], which has been involved in litigation with Patent Owner for over two years." Prelim. Resp. 9. Patent Owner argues that on February 7, 2014, Patent Owner served 2Wire a Second Amended Complaint alleging infringement by 2Wire ("2Wire Lawsuit"). *Id.*; *see also* Ex. 2008. At the time of filing of that complaint, 2Wire, as alleged by Patent Owner, was a wholly-owned subsidiary of Pace Plc. ("Pace"). *Id.* at 10. Patent Owner argues that 2Wire and Pace are barred from filing a petition for an *inter partes* review of the '430 patent under 35 U.S.C. §

[4] U.S. Patent No. 4,679,227; issued July 7, 1987 (Ex. 1008) ("Hughes-Hartogs").
[5] U.S. Patent No. 4,438,511; issued Mar. 20, 1984 (Ex. 1010) ("Baran").
[6] U.S. Patent No. 5,838,268; issued Nov. 17, 1998 (Ex. 1011) ("Frenkel").

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