

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

Case IPR2016-01760
Patent 9,094,268 B2

Before SALLY C. MEDLEY, TREVOR M. JEFFERSON, and
MATTHEW R. CLEMENTS, *Administrative Patent Judges*.

JEFFERSON, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
Inter Partes Review
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

We instituted *inter partes* review pursuant to 35 U.S.C. § 314 on a petition filed by Cisco Systems, Inc. (“Petitioner”) challenging claims 1, 2, 4, 11, 12, 14, 16, and 18 of U.S. Patent No. 9,094,268 B2 (Ex. 1001, “the ’268 patent”) owned by TQ Delta, LLC (“Patent Owner”). Paper 1 (“Pet.”). We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable. Patent Owner’s Motion to Exclude is denied.

A. Procedural History

Petitioner filed a Petition requesting an *inter partes* review of claims 1, 2, 4, 11, 12, 14, 16, and 18 of the ’268 patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 6. We instituted *inter partes* review of claims 1, 2, 4, 11, 12, 14, 16, and 18 of the ’268 patent as unpatentable over Bowie¹ and Yamano² under 35 U.S.C. § 103(a). Paper 9 (“Inst. Dec.”), 21.

Patent Owner filed a Patent Owner Response (Paper 13, “PO Resp.”), to which Petitioner filed a Reply (Paper 15, “Reply”). Pursuant to our Order (Paper 22), Patent Owner filed a listing of alleged statements and evidence

¹ U.S. Patent No. 5,956,323; filed July 30, 1997, issued Sep. 21, 1999 (Ex. 1005, “Bowie”).

² U.S. Patent No. 6,075,814; filed May 9, 1997, issued June 13, 2000 (Ex. 1006, “Yamano”).

in connection with Petitioner's Reply it deemed to be beyond the proper scope of a reply. Paper 23. Petitioner filed a response to Patent Owner's listing. Paper 28.

We held a hearing on November 8, 2017, and a transcript of the hearing is included in the record. Paper 34 ("Tr.").

B. Related Proceedings

The parties state that the '268 patent is asserted in *TQ Delta LLC v. Comcast Cable Comms., et al.*, Case No. 1:15-cv-00611 (D. Del.); *TQ Delta LLC v. CoxCom LLC et al.*, Case No. 1:15-cv-00612 (D. Del.); *TQ Delta LLC v. DirecTV et al.*, Case No. 1:15-cv-00613 (D. Del.); *TQ Delta LLC v. DISH Network Corp. et al.*, Case No. 1:15-cv-00614 (D. Del.); *TQ Delta LLC v. Time Warner Cable Inc., et al.*, Case No. 1:15-cv-00615 (D. Del.); and *TQ Delta LLC v. Verizon Comms., Inc.*, Case No. 1:15-cv-00616 (D. Del.). Pet. 1; Paper 4, 2–3. The '268 patent is also involved in *Dish Networks LLC v. TQ Delta LLC*, IPR2016-01469 (PTAB Jul. 21, 2016). Pet. 1; Paper 4, 2–3.

C. The '268 Patent

The '268 patent describes "a multicarrier transmission system having a low power sleep mode and a rapid-on capability." Ex. 1001, 3:35–37. The sleep mode idles a multicarrier transceiver when it is not needed to transmit or receive data, with transmission and reception capabilities quickly restored without requiring full initialization after inactivity. *Id.* at Abstract. The system includes a transceiver at the local central telephone office's location

(“CO transceiver”) and a transceiver at the customer’s premises (“CPE transceiver”), which communicate over a telephone line. *Id.* at 3:66–4:9.

Figure 1 reproduced below depicts a preferred embodiment of the invention.

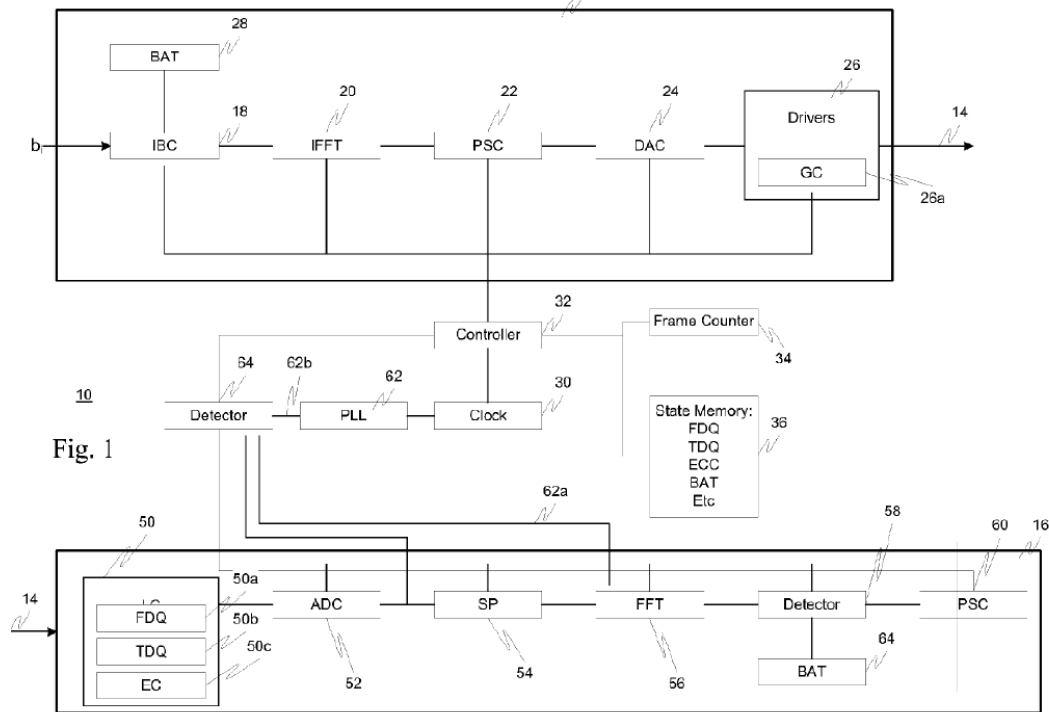


Figure 1 shows a block diagram of a multicarrier transmission system. *Id.* at 3:50–53. Each transceiver includes “DSL transceiver 10” with “transmitter section 12 for transmitting data over a digital subscriber line 14 and a receiver section 16 for receiving data from the line.” *Id.* at 4:18–21, FIG. 1. In one embodiment, the transmitter and receiver sections 12, 16 enter a low power mode (or “sleep” mode), where power is reduced or cut off to the digital modulators/demodulator portions (sections 12, 16) of the transmitter and receiver sections (corresponding to the IFFT 20 (data modulator) and FFT 56 (demodulator) of the CPE transceiver of Figure 1). *Id.* at 6:66–7:21.

In another embodiment, the transceiver is placed into a “partial” sleep mode “in which only part of each transceiver is powered down.” *Id.* at 8:52–60.

The ’268 patent specification discloses that a transceiver entering a low power mode must first store a variety of line parameters comprising its “state memory.” *Id.* at 6:66–7:14. During sleep mode state, the CO transceiver monitors data subscriber line 14 for an “Exiting Sleep Mode” signal from the CPE transceiver. *Id.* at 7:64–69. The CPE transceiver transmits this signal when the “controller receives an ‘Awaken’ indication. . . . In response to the ‘Awaken’ signal, the CPE transceiver retrieves its stored state from the state memory 38; [and] restores full power to its circuitry.” *Id.* at 7:64–8:6.

D. Illustrative Claims

Claims 1 and 11 are independent and reproduced below as illustrative of the claims at issue:

1. A method, in a multicarrier transceiver, comprising:
transmitting or receiving a message to enter a low power mode; and
entering the low power mode, wherein a transmitter portion of the transceiver does not transmit data during the low power mode and a receiver portion of the transceiver receives data during the low power mode, wherein the transceiver is a device that is capable of transmitting or receiving internet and video data.

11. A method, in a multicarrier transceiver, comprising:
transmitting or receiving a message to enter a low power mode for a transmitter portion while a receiver portion remains in a full power mode; and

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.