

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARRIS GROUP, INC.,
Petitioner,

v.

TQ DELTA, LLC,
Patent Owner.

IPR2016-01160
Patent 8,611,404 B2

Before KALYAN K. DESHPANDE, TREVOR M. JEFFERSON, and
GREGG I. ANDERSON, *Administrative Patent Judges*.

JEFFERSON, *Administrative Patent Judge*.

FINAL WRITTEN DECISION ON REMAND
Determining All Remaining Challenged Claims Unpatentable
35 U.S.C. §§ 144, 318(a)

I. INTRODUCTION

The U.S. Court of Appeals for the Federal Circuit’s decision in *Cisco Sys., Inc. v. TQ Delta, LLC*, 928 F.3d 1359 (Fed. Cir. 2019), vacated our claim construction in the Final Written Decision (Paper 34, “Final Dec.”), which found that ARRIS Group, Inc. (“Petitioner”) failed to show by a preponderance of the evidence that claims 1–20 of U.S. Patent No. 8,611,404 B2 (Ex. 1001, “the ’404 patent”) owned by TQ Delta, LLC (“Patent Owner”), were unpatentable, and remanded for consideration of Petitioner’s case under the proper construction. *Cisco Sys.*, 928 F.3d at 1364. This decision addresses the parties’ contentions following remand.

Claims 6, 11, 16, and 20 were affirmed as unpatentable in a related Federal Circuit decision discussed below, so they are no longer involved in this proceeding. *TQ Delta, LLC v. Dish Network LLC*, 929 F.3d 1350, 1360–1362 (Fed. Cir. 2019). For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that the remaining claims are unpatentable. Patent Owner’s Motion to Exclude is dismissed.

A. Procedural History

1. Proceedings Before the Board

Petitioner filed a Petition requesting an *inter partes* review of claims 1–20 (“the original challenged claims”) of the ’404 patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response to the Petition. (Paper 7, “Prelim. Resp.”). We instituted *inter partes* review of claims 1–20 of the ’404 patent on the following ground.

Original Claims Challenged	35 U.S.C. §	References/Basis
1–20	103	Bowie, ¹ Vanzieleghem, ² ANSI T1.413. ³

Paper 8, 2, 16 (“Inst. Dec.”). In the Decision on Institution we exercised our discretion under 35 U.S.C. § 314(a) and did not institute *inter partes* review on Petitioner’s proposed ground that claims 1–20 of the ’404 patent were unpatentable over T1E1.4/97-161R1, T1E1.4/97-319, and ANSI T1.413.⁴ Inst. Dec. 15–16.

Following institution of *inter partes* review, Patent Owner filed a Patent Owner Response (Paper 16, “PO Resp.”), to which Petitioner filed a Reply (Paper 17, “Reply”). Pursuant to our Order (Paper 22), Patent Owner filed a listing of alleged statements and evidence 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 29. We held a

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

² U.S. Patent No. 6,246,725 B1; issued Jun. 12, 2001 (Ex. 1006, “Vanzieleghem”).

³ *Network and Customer Installation Interfaces – Asymmetric Digital Subscriber Line (ADSL) Metallic Interface*, AMERICAN NATIONAL STANDARDS INSTITUTION (ANSI) T1.413-1995 STANDARD (Ex. 1009, “ANSI T1.413”).

⁴ Following remand, the parties informed the Board that “no additional briefing or argument is necessary for this matter, and that the decision on remand should be rendered on the existing record.” Paper 41, 2.

Accordingly, we do not address Petitioner’s proposed ground that claims 1–20 of the ’404 patent were unpatentable over T1E1.4/97-161R1, T1E1.4/97-319, and ANSI T1.413 as that contention is waived.

hearing on September 7, 2017, and a transcript of the hearing is included in the record. Paper 33 (“Tr.”).

We issued a Final Written Decision finding that Petitioner failed to show by a preponderance of the evidence that the original challenged claims of the ’404 patent, were unpatentable. Final Dec. 17. Pursuant to 37 C.F.R. § 42.71(d), Petitioner requested rehearing of our Final Written Decision (Paper 35), which we denied (Paper 36). Petitioner appealed our Final Written Decision to the United States Court of Appeals for the Federal Circuit. Paper 38 (Notice of Appeal).

2. Federal Circuit Decisions and the Remand Proceeding

The ’404 patent entitled “Multicarrier Transmission System with Low Power Sleep Mode and Rapid-On Capability,” relates to the field of “multicarrier transmission systems” and “establishing a power management sleep state in a multicarrier system.” Ex. 1001, code (54), 1:31–33. Each independent claim recites a “synchronization signal,” however, that term appears only in the claims and is not expressly discussed in the specification. *See* Ex. 1001, 10:6–12:6. Our Final Written Decision found that “synchronization signal” should not be construed to encompass a synchronization frame because the claims separately recite a “synchronization frame.” Final Dec. 6. Based on this claim construction, we found that Petitioner failed to show by a preponderance of the evidence that the cited art teaches the “synchronization signal” as recited in claims 1–20. Final Dec. 15–17.

In related IPR2016-01466, we applied the same claim construction in concluding that claims 1–20 of the ’404 patent had not been shown to be

unpatentable based on different unpatentability grounds. In a decision addressing the combined appeal of our Final Written Decisions in this proceeding and IPR2016-01466 proceeding (Paper 38), the Federal Circuit vacated our decision and remanded “to consider [Petitioner’s] unpatentability challenge under the proper claim construction.” *Cisco Sys.*, 928 F.3d at 1359. “Contrary to the [our] conclusion [in the Final Written Decision], [the Federal Circuit] determine[d] that the broadest reasonable interpretation of the disputed claim term ‘synchronization signal’ is simply ‘used to establish or maintain a timing relationship between transceivers between the transmitter of the signal and the receiver of the signal,’ meaning synchronization signal includes frame synchronization.” *Cisco Sys.*, 928 F.3d at 1364 (Fed. Cir. 2019). Critically, for purposes of our Remand Decision, the Federal Circuit found that the proper claim construction for “synchronization signal” includes “frame synchronization.” *Id.* Our prior construction of “synchronization signal” excluded “frame synchronization.” Final Dec. 15–16.

In IPR2016-01470 that is closely related to this proceeding, a different Petitioner, DISH Network, LLC (“the ’1470 Petitioner”), presented closely related arguments based on the same prior art combination in the instant case—Bowie, Vanzielegem, and ANSI T1.413—and argued that the references rendered the limitations of claims 6, 11, 16, and 20 of the ’404 obvious.⁵ *DISH Network LLC. v. TQ Delta, LLC*, IPR2016-01470, Paper 44 at 16–17, 37 (PTAB Feb. 7, 2018) (“’1470 Final Dec.”). The Board found that the ’1470 Petitioner demonstrated, by a preponderance of the evidence,

⁵ Claims 6, 11, and 16 are independent, claim 20 depends from claim 16. *See* Ex. 1001, 10:6–12:6

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.