UNITED STATES PATENT AND TRADEMARK OFFICE
_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD
_____

DALI WIRELESS INC.,
Petitioner,

v.

COMMSCOPE TECHNOLOGIES LLC,
Patent Owner.

_____

Case IPR2017-01324
Patent 7,848,747 B2

_____

Before JAMES B. ARPIN, BARBARA A. PARVIS, and
TERRENCE W. McMILLIN, *Administrative Patent Judges*.

McMILLIN, *Administrative Patent Judge*.

DECISION
Denying Petitioner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

A. Background

Dali Wireless Inc. ("Petitioner") filed a Petitioner's Request for Rehearing Pursuant to 37 C.F.R. § 42.71 (Paper 7, "Req. Reh'g") of our decision not to institute an *inter partes* review (Paper 6, "DDI") of claims 1–5 and 7–17 of U.S. Patent No. 7,848,747 B2 (Ex. 1001, "the '747 patent").[1] Specifically, Petitioner argues:

> In rendering its Decision, the Board did not interpret the claimed "sample rate selected based on the bandwidth" and similar limitations under the Broadest Reasonable Interpretation standard, and as a result misapprehended the Petition's application of the Bellers and Ichiyoshi references to this claim limitation. In addition, the Board did not fully analyze the evidence provided by Petitioner that supports the motivation to combine. As a result, the Board inadvertently overlooked evidence provided by the Petition that supports a finding of a motivation to combine these references.

Req. Reh'g. 1. Accordingly, we have considered whether we overlooked or misunderstood the Petition's arguments and evidence establishing whether: (1) Bellers or Ichiyoshi teach or suggest a "sample rate selected based on the bandwidth" and (2) there is a motivation to combine the applied references.

---

[1] The Petition (Paper 2, "Pet.") and our Decision Denying Institution (Paper 6) were broader in scope than the Request for Rehearing (Paper 7). In the Petition, *inter partes* review was requested of claims 1–17 (all) of the '747 patent based on three asserted grounds. Pet. 16. In the Request for Rehearing, Petitioner only requests "reconsideration of the Board's decision not to institute a review of claims 1-5 and 7-17 of U.S. Patent No. 7,848,747 as being rendered obvious by the combination of Bellers in view of Farhan and of claims 1, 7, 8, 10, 11, and 14 as being rendered obvious by the combination of Ichiyoshi and Farhan." Req. Reh'g 2.

Upon consideration of the Request for Rehearing and Petitioner's arguments and evidence, we conclude that Petitioner has not persuaded us of any reason to alter our decision denying institution of an *inter partes* review of claims 1–5 and 7–17 of the '747 patent. For the reasons provided below, we deny Petitioner's Request for Rehearing.

B. The '747 Patent

The '747 patent is entitled, "System and Method for Enhancing the Performance of Wideband Digital RF Transport Systems." Ex. 1001, (54).

The Abstract of the '747 patent states that:

> A system and method for enhancing the performance of wideband digital RF transport systems is disclosed, which enables the transport of different bandwidth segments on a plurality of wideband channels by selecting an optimal clock sample rate for each bandwidth segment to be transported. Thus, the bandwidth segments are proportionally allocated so that an optimum amount of bandwidth can be transported at the serial bit rate.

Id., (57).

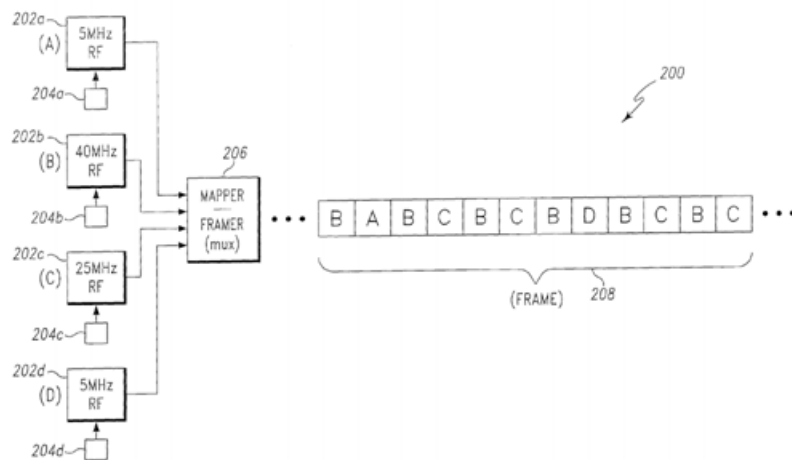Figure 2 of the '747 patent is reproduced below.

Fig. 2

Figure 2 depicts "how the present invention allocates bandwidth proportionally." *Id*. at 6:2–3. The detailed description of Figure 2 states that:

> The sample rate of sample clock 204*a* is selected to be approximately 15 Msps (for 5 MHz bandwidth segments), approximately 90 Msps for sample clock 204*b* (for 40 MHz bandwidth segments), approximately 60 Msps for sample clock 204*c* (for 25 MHz bandwidth segments), and approximately 15 Msps for sample clock 204*d* (for 5 MHz bandwidth segments). Thus, as illustrated by this example, the bandwidths in frame 208 are allocated proportionally, by transporting one slot for bandwidth A (5 MHz), six slots for bandwidth B (40 MHz), four slots for bandwidth C (25 MHz), and one slot for bandwidth D (5 MHz).

Id. at 6:25–36.

The '747 patent contains seventeen claims, four of which are independent claims. Independent claim 1 is directed to a method, independent claims 7 and 11 are directed to host units, and independent claim 14 is directed to a system. Petitioner challenges all 17 claims. Independent claim 1 recites (emphasis added):

> 1. A method comprising:
>
> receiving a plurality of analog inputs each having an associated bandwidth containing an arbitrary number of channels;
>
> sampling each of the plurality of analog inputs with a selected sample rate, *the selected sample rates selected based on the bandwidth of the associated one of the plurality of analog inputs*;
>
> combining the samples of the plurality of analog inputs;
>
> converting the combined samples to a serial data stream; and

transmitting the serial data stream over a communication medium.

Ex. 1001, 6:49–61.

Dependent claim 6 recites (emphasis added), "[t]he method of claim 1, wherein the *sample rate is proportional to the bandwidth* of the associated one of the plurality of analog inputs." *Id.* at 7:12–14.

Independent claim 7 recites (emphasis added), "each analog to digital converter circuit operating at a *sample rate related to a signal bandwidth* of its associated broadband RF signal." *Id.* at 7:15–27.

Independent claim 11 recites (emphasis added), "the selected *sample rates selected based on the bandwidth* of the analog signal." *Id.* at 7:48–61.

Independent claim 14 recites (emphasis added), "each *output* has an associated sample clock with a *sample rate selected based on the bandwidth* of the associated RF bandwidth segment." *Id.* at 8:14–47.

Dependent claim 16 recites (emphasis added), "each analog to digital converter circuit has an associated sample clock with a *sample rate selected based on the bandwidth* of the associated RF bandwidth segment." *Id.* at 8:53–56.

II. ANALYSIS

A. *Selecting the Sample Rate Based on Bandwidth*

Each of the claims of the '747 patent contains a limitation relating to selecting the sample rate based on the bandwidth. *See* Req. Reh'g 3–4. In the Petition, Petitioner relied on each of the cited references as teaching or suggesting selecting the sample rate based on the bandwidth. *See* Pet. 14–15 (claim 1, citing Bellers and Farhan), 25–26 (claim 6, citing Bellers 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.