

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

D. The Asserted Grounds

Petitioner asserts the following grounds of unpatentability:

References	Basis	Claims Challenged
Bellers and Farhan	103(a)	1–17 (all)
Bellers and Grace	103(a)	7–11, and 13–17
Ichiyoshi and Farhan	103(a)	1, 7, 8, 10, 11, and 14

Pet. 16.

E. 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:

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.

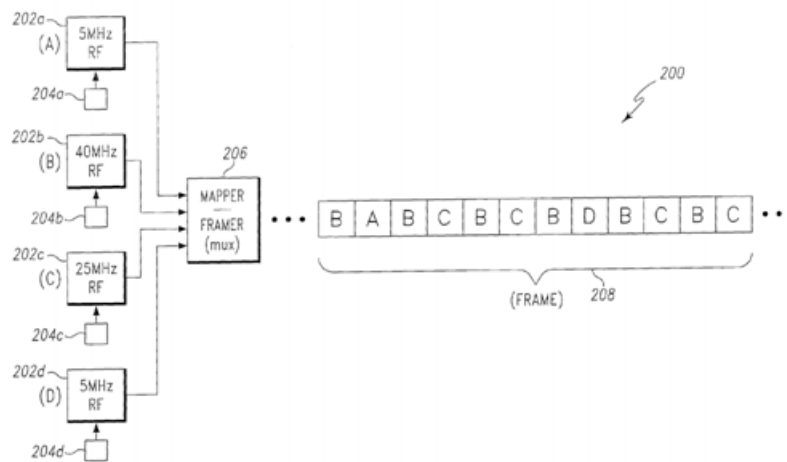


Fig. 2

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

The sample rate of sample clock 204a is selected to be approximately 15 Msps (for 5 MHz bandwidth segments), approximately 90 Msps for sample clock 204b (for 40 MHz bandwidth segments), approximately 60 Msps for sample clock 204c (for 25 MHz bandwidth segments), and approximately 15 Msps for sample clock 204d (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 17 claims and 4 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.

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.”

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.”

Independent claim 11 recites (emphasis added), “the selected *sample rates selected based on the bandwidth* of the analog signal.”

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.”

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.”

II. ANALYSIS

A. Claim Construction

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b). In applying a broadest reasonable construction, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

For the terms, “broadband,” “analog to digital converter circuit(s),”

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