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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDIATEK INC. and MEDIATEK USA, INC., Petitioner,

v.

BANDSPEED, INC., Patent Owner.

Case IPR2015-00315 Patent 7,477,624 B2

Before BART A. GERSTENBLITH, DAVID C. McKONE, and PATRICK M. BOUCHER, *Administrative Patent Judges*.

BOUCHER, Administrative Patent Judge.

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

On November 26, 2014, Marvell Semiconductor, Inc., MediaTek Inc., and MediaTek USA, Inc. (collectively, "Petitioner") filed a Petition (Paper 1, "Pet.") pursuant to 35 U.S.C. §§ 311–319 to institute an *inter*

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IPR2015-00315 Patent 7,477,624 B2

partes review of claims 5–8 and 17–20 of U.S. Patent No. 7,477,624 B2 ("the '624 patent"). Bandspeed, Inc. ("Patent Owner") did not file a Preliminary Response. Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review of claims 5–8 and 17–20 of the '624 patent.

I. BACKGROUND

A. The '624 Patent

The '624 patent was filed on April 3, 2006, as a continuation of U.S. Patent Application No. 09/948,488, which was filed on September 6, 2001, and issued as U.S. Patent No. 7,027,418. Ex. 1001 [63]. The '624 patent also claims the benefit of the filing date of U.S. Provisional Application No. 60/264,594, filed on January 25, 2001. *Id.* at [60]. The '624 patent relates to managing the use of communications channels based on channel performance. Ex. 1001, col. 1, 11. 46–48. Figure 2 of the '624 patent is reproduced below.



Figure 2 is a block diagram that depicts a communications network having "master" communications device 210 and multiple "slave" communications devices 220 and 230, each of which includes a memory, a processor, and a transceiver. *Id.* at col. 9, 11. 53–63. To manage the use of communications channels between the master and slaves via the respective transceivers, an initial set of channels is selected based on selection criteria at the start-up of the communications network. *Id.* at col. 6, 11. 19–21. Additional sets of channels then are selected periodically for adaptive avoidance of interference. *Id.* at col. 6, 11. 21–23.

For example, master 210 may select a set of communications channels from default communications channels for a specified communications protocol, generate identification data for the selected set of channels, and transmit the identification data to slave 220. *Id*.at col. 9, 1. 64–col. 10, 1. 3. If slave 230 is incapable of using the selected set of channels, master 210

communicates with slave 220 using the selected set of communications channels and communicates with slave 230 using the default communications channels for the specified communications protocol. *Id.* at col. 10, ll. 4–15.

The '624 patent describes various techniques for assessing performance of communications channels that include the use of special test packets (*id.* at col. 10, l. 33–col. 12, l. 35), a received signal strength indicator ("RSSI") (*id.* at col. 12, l. 37–col. 13, l. 2), and cyclic redundancy checks ("CRC") (*id.* at col. 13, l. 50–col. 14, l. 6). Communications channels are classified based on channel performance as determined by such assessments and according to classification criteria. *Id.* at col. 14, ll. 63–65. In a particular implementation, a "referendum" approach is used in which participant devices "vote" whether to use a particular channel or not. *Id.* at col. 16, ll. 65–66. The votes may be used according to various approaches, such as through the use of weighted votes, in determining final channel classifications. *Id.* at col. 17, ll. 25–34.

B. Illustrative Claim

Independent claim 5 is illustrative of the claims at issue:

5. A communications apparatus comprising:

means for selecting, based upon performance of a plurality of communications channels at a first time, a first set of two or more communications channels from the plurality of communications channels;

means for causing the first set of two or more communications channels to be used for communications between a pair of participants;

means for selecting, based upon performance of the plurality of communications channels at a second time that is

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later than the first time, a second set of two or more communications channels from the plurality of communications channels; and

means for causing the second set of two or more communications channels to be used for communications between the pair of participants instead of the first set of two or more communications channels, wherein at each hop in a hopping sequence based on a frequency hopping protocol, only one communications channel of the second set of two or more communications channels is used for communications between the pair of participants,

wherein the pair of participants includes a first participant and a second participant, wherein a default set of two or more communications channels is associated with the hopping sequence and is not changed based on the performance of the plurality of communications channels, and the communications channel selector apparatus further comprises:

means [for] the first participant to communicate with a third participant over the default set of two or more communications channels while communicating with the second participant over the first set of two or more communications channels and while communicating with the second participant over the second set of two or more communications channels.

C. References

Petitioner relies on the following references.

Gerten	US 6,760,319 B1	July 6, 2004	Ex. 1003
Cuffaro	US 6,418,317 B1	July 9, 2002	Ex. 1004
Gendel	US 6,115,407	Sept. 5, 2000	Ex. 1005
Haartsen	US 7,280,580 B1	Oct. 9, 2007	Ex. 1006
Sage	US 5,781,582	July 14, 1998	Ex. 1007

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 5–8 and 17–20 of the '624 patent on the following grounds. Pet. 2.

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