UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

APPLE INC.,
HTC CORPORATION, HTC AMERICA, INC.,
AND ZTE (USA) INC.,
Petitioner,

v.

INVT SPE LLC,
Patent Owner.

_____

Case IPR2018-01473
Patent 6,611,676 B2

_____

Before THU A. DANG, KEVIN F. TURNER, and
BARBARA A. BENOIT, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I.   INTRODUCTION

A. Background

Apple Inc., HTC Corporation, HTC America, Inc., and ZTE (USA), Inc. (collectively, "Petitioner") filed a Petition requesting an *inter partes* review of claims 1–11 ("the challenged claims") of U.S. Patent No. 6,611,676 B2 (Ex. 1001, "the '676 patent"). Paper 1 ("Pet."). INVT SPE LLC ("Patent Owner") filed a Preliminary Response. Paper 9 ("Prelim. Resp."). Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

For the reasons stated below, we determine that there is a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. We hereby institute *inter partes* review of all challenged claims on all grounds of unpatentability asserted in the Petition.

B. Related Proceedings

According to Petitioner, the '676 patent is at issue in the following: *INVT SPE LLC v. Apple, Inc.*, Case No. 2:17-cv-03738 (D.N.J.); *INVT SPE LLC v. HTC Corporation and HTC America, Inc.*, Case No. 2:17-cv-03740 (D.N.J.); and *INVT SPE LLC v. ZTE Corporation and ZTE (USA) Inc.*, Case No. 2:17-cv-06522 (D.N.J.). Pet. 44. Further, Petitioner asserts that the '676 patent was previously at issue in *Inventergy, Inc. v. Apple, Inc.*, Case No. 1:17-cv-00196 (D. Del.); and *Inventergy, Inc. v. HTC Corporation and HTC America, Inc.*, Case No. 1:17-cv-00200 (D. Del.). *Id.* at 44–45.

C. The '676 Patent

The '676 patent, titled "Radio Communication Apparatus and Transmission Rate Control Method," issued on August 26, 2003, from an application filed February 27, 2002, which in turn is a continuation of an international application filed on April 19, 1997 in Japan. Ex. 1001, [54], [45], [22], [63]. According to the '676 patent, "[a] communication terminal apparatus measures reception quality," and "a base station apparatus switches the transmission rate based on the report result of the reception quality." *Id.* at Abstract. Thus, "the transmission rate is switched starting at the point in time at which the reception quality of the communication terminal apparatus deteriorates," so that "the amount of interference with others is within the allowable range." *Id.*

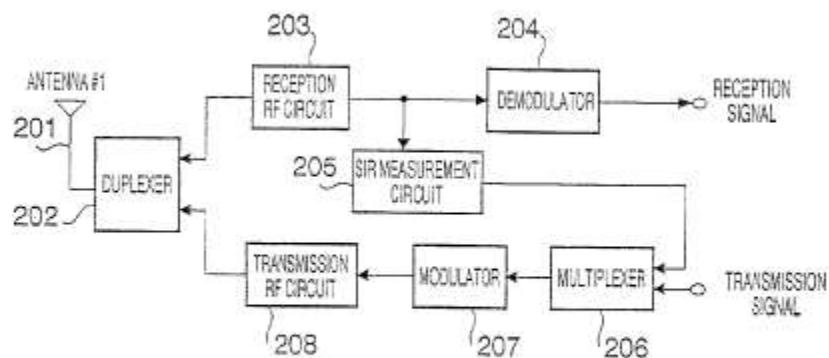Figure 2 is reproduced below:

FIG. 2

Figure 2 depicts "a block diagram showing a configuration of a communication terminal apparatus that carries out a radio communication with the base station apparatus." *Id.* at 3:61–65.

3

As shown in Figure 2, "[a] signal received from antenna 201 is sent to reception RF circuit 203 via duplexer 202 to use a same antenna for both transmission and reception, where it is amplified and converted to an intermediate frequency or a baseband frequency." *Id.* at 3:66–4:2. "The frequency-converted signal is demodulated by demodulator 204," while "the output signal of the reception RF circuit is sent to reception quality measurement circuit 205, where the reception quality is measured." *Id.* at 4:3–6. The reception quality includes, for example, "signal to interference ratio (SIR), Signal-to-Interference plus Noise Ratio ['SINR'])." *Id.* at 4:7–14.

The '676 acknowledges that, in the prior art, "measurement of SIR indicating the reception quality" is known in "transmission power control," wherein "if the measured SIR is greater than the target SIR[,] a command to reduce transmission power is sent to the base station," "if the measured value is smaller than the target SIR[,] a command to increase transmission power is sent to the base station," and "[t]he base station increments or decrements transmission power according to this command." *Id.* at 1:23–32. However, the '676 patent notes that the prior art has a problem, namely, "the target SIR increases depending on the environment," and the "transmission rate of the mobile station and the reception SIR sometimes decreases due to fading, etc." *Id.* at 1:47–50. In such case, "the mobile station instructs the base station to increase transmission power," which "considerably increas[es] transmission power of the base station to the mobile station," and "is likely to increase interference with other mobile stations to an intolerable degree." *Id.* at 1:50–56.

The operation of "a transmission rate switching method in the base station apparatus" according to an embodiment (*id.* at 2:45–47) is explained in detail with respect to Figure 13 reproduced below:
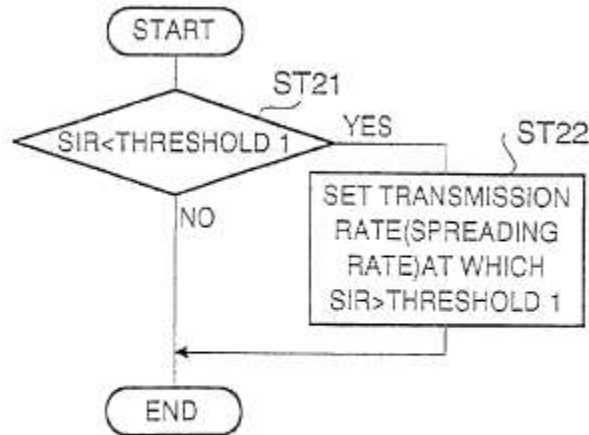

FIG. 13

Figure 13 depicts "a flow chart of the transmission rate switching control circuit." *Id.* at 6:60–61. As shown in Figure 13, "the base station apparatus compares the reception quality measurement result reported from the communication terminal apparatus with threshold 1 (ST21)." *Id.* at 7:9–12. Threshold 1 "is set according to the transmission rate, but in a CDMA communication system, it is set according to the spreading factor or the number of multiplexing codes." *Id.* at 6:67–7:3. "[I]f SIR is greater than threshold 1, the same transmission rate is used," but "[i]f SIR is smaller than threshold 1, the transmission rate is switched to such a transmission rate that SIR is greater than threshold 1 (ST22)." *Id.* at 7:12–15. Thus, by switching the transmission rate, "SIR exceeds threshold 1 and more accurate control can be performed on varying reception quality." *Id.* at 7:16–18. "This makes it possible to improve the reception quality of the other end of

5

DOCKET ALARM

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.

fastcase
Smarter legal research.