

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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KYOCERA CORPORATION, and  
KYOCERA COMMUNICATIONS INC.,  
Petitioner,

v.

ADAPTIX, INC.,  
Patent Owner.

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Case IPR2015-00319  
Patent 6,947,748 B2

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Before GLENN J. PERRY, TREVOR M. JEFFERSON, and  
JUSTIN BUSCH, *Administrative Patent Judges*.

PERRY, *Administrative Patent Judge*.

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

SPRINT 1011

## INTRODUCTION

### *A. Background*

Kyocera Corporation and Kyocera Communications Inc. (collectively, “Petitioner”) filed a Petition for an *inter partes* review of claims 8, 9, 21, and 22 of U.S. Patent No. 6,947,748 B2 (Ex. 1003, “the ’748 patent”) under 35 U.S.C. §§ 311–319. Paper 1 (“Petition” or “Pet.”). Adaptix, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). We have jurisdiction under 35 U.S.C. § 314, which provides that 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 that follow, we institute an *inter partes* review as to claims 8, 9, 21 and 22 of the ’748 patent.

### *B. Related Proceedings*

Petitioner indicates that the ’748 patent is involved in numerous lawsuits pending in Texas and California. Pet. 1–2. The ’748 patent is also involved in Case IPR2014-01524 (Decision to Institute (Paper 16), April 8, 2015) brought by a different Petitioner.

## THE ’748 PATENT

### *A. The ’748 Patent Invention*

The ’748 patent describes an arrangement for selecting and assigning subcarriers for use by multiple subscribers (e.g., mobile phones) in an orthogonal frequency division multiple access (OFDMA) system. Subscribers measure “channel and interference information” for subcarrier

channels using pilot symbols transmitted by a base station. Ex. 1003, Abstract. A subscriber selects “candidate subcarriers” and provides feedback (measurement) information on the candidate subcarriers to the base station. The base station then selects subcarriers for use by the subscriber that chose the candidate subcarriers. *Id.*

*B. Illustrative Claims*

Of the challenged claims, claims 8 and 21 are independent and are reproduced below.

8. A method for subcarrier selection for a system employing orthogonal frequency division multiple access (OFDMA) comprising:

a subscriber measuring channel and interference information for a plurality of subcarriers based on pilot symbols received from a base station;

the subscriber selecting a set of candidate subcarriers;

the subscriber providing feedback information on the set of candidate subcarriers to the base station;

the subscriber sending an indication of coding and modulation rates that the subscriber desires to employ for each cluster; and

the subscriber receiving an indication of subcarriers of the set of subcarriers selected by the base station for use by the subscriber.

21. An apparatus comprising:

a plurality of subscribers in a first cell to generate feedback information indicating clusters of subcarriers desired for use by the plurality of subscribers; and

a first base station in the first cell, the first base station to allocate OFDMA subcarriers in clusters to the plurality of subscribers;

each of a plurality of subscribers to measure channel and interference information for the plurality of subcarriers based on pilot symbols received from the first base station and at least

one of the plurality of subscribers to select a set of candidate subcarriers from the plurality of subcarriers, and  
the one subscriber to provide feedback information on the set of candidate subcarriers to the base station and to receive an indication of subcarriers from the set of subcarriers selected by the first base station for use by the one subscriber,  
wherein the one subscriber sends an indication of coding and modulation rates that the one subscriber desires to employ.

*C. Asserted Grounds of Unpatentability*

Petitioner asserts the following grounds of unpatentability under 35 U.S.C. § 103(a) against claims 8, 9, 21, and 22 (Pet. 3):

Prior Art	Claims
Ritter <sup>1</sup> , Van Nee <sup>2</sup> , and Chuang <sup>3</sup>	8, 9, 21, and 22
Hashem I <sup>4</sup> and Hashem II <sup>5</sup>	8, 9, 21, and 22

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<sup>1</sup> The parties refer to Exhibit 1004 as “Ritter,” which is an English translation of DE 19800953 C1. The German patent document has been entered as Exhibit 1015.

<sup>2</sup> The parties refer to Exhibit 1005 as “Van Nee,” which is an English translation of Japanese Unexamined Patent Application Publication H10-303849. The Japanese document has been entered as Exhibit 1014.

<sup>3</sup> J. C-I Chuang, N. R. Sollenberger, and D. C. Cox, *A Pilot Based Dynamic Channel Assignment Scheme for Wireless Access TDMA/FDMA Systems*, 2 1993 2ND IEEE INT’L CONF. ON UNIVERSAL PERSONAL COMM’NS 706–712 (1993). Exhibit 1006 (“Chuang”).

<sup>4</sup> U.S. Patent No. 6,721,569 B1 – Hashem et al., Exhibit 1007 (“Hashem I”).

<sup>5</sup> U.S. Patent No. 6,701,129 B1– Hashem et al., Exhibit 1008 (“Hashem II”).

## CLAIM CONSTRUCTION

### *A. Claim Interpretation*

In an *inter partes* review, the Board construes claim terms of an unexpired patent using their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764 (Aug. 14, 2012). Petitioner submits constructions for several claim terms (Pet. 8–12). Patent Owner does not contest Petitioner’s constructions. Prelim. Resp. 7–9.

### *B. “cluster(s)” (claims 8 and 21)*

The term “cluster(s),” appears in both independent claims 8 and 21. According to Petitioner, “each cluster,” as used in claim 8, is indefinite because there is no antecedent basis for “cluster” in the claim. Pet. 16. Nevertheless, Petitioner asks that we construe “cluster” in the context of claim 8 as a “set of candidate subcarriers.” *Id.* Patent Owner does not propose a construction of the term. We do not find a definition of the term in the specification. For purposes of this Decision, we adopt Petitioner’s construction that “cluster” refers to a “set of candidate subcarriers,” which appears to reflect the plain meaning of the term in context.

### *C. “pilot symbol(s)” (claims 8 and 21)*

In another proceeding involving the ’748 patent, a court construed the term “pilot symbols” to mean “symbols, sequences, or signals known to both the base station and subscriber.” Pet. 7; Ex. 1009, 17. The ’748 patent specification states that “pilot symbols” embrace different types of

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