

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ERICSSON INC. and
TELEFONAKTIEBOLAGET LM ERICSSON,
Petitioner,

v.

INTELLECTUAL VENTURES I LLC,
Patent Owner.

Case IPR2014-00963
Patent 6,952,408 B2

Before JOSIAH C. COCKS, WILLIAM A. CAPP, and
DAVID C. MCKONE, *Administrative Patent Judges*.

PER CURIAM.

DECISION ON REMAND
35 U.S.C. § 144 and 37 C.F.R. § 42.5(a)

I. INTRODUCTION

A. Background

Ericsson Inc. and Telefonaktiebolaget LM Ericsson (collectively “Petitioner”) filed a Corrected Petition (Paper 6, “Pet.”) to institute *inter partes* review of claims 1–16 of U.S. Patent No. 6,952,408 B2 (Ex. 1001, “the ’408 patent”). Intellectual Ventures I LLC (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”). Pursuant to 35 U.S.C. § 314, in our Decision to Institute, we instituted this proceeding as to all of the challenged claims of the ’408 patent. Paper 10 (“Dec. Inst.”), 26.

After the Decision to Institute, Patent Owner filed a Patent Owner Response (Paper 16, “PO Resp.”), and Petitioner filed a Reply to the Patent Owner Response (Paper 18, “Reply”). An oral hearing was held on August 26, 2015. Paper 28 (“Tr.”).

We issued a Final Written Decision in this proceeding on October 22, 2015, ruling that Petitioner had not shown, by a preponderance of the evidence, that claims 1–10 and 12–16 are anticipated by the ’480 patent (Ex. 1006) or that claims 1–16 would have been obvious over the ’480 patent, the ’435 patent, and GSM 05.02 (Ex. 1012). Paper 29 (“FWD”). We maintained that ruling upon request for rehearing. Paper 31. The Federal Circuit reversed our decision as to claim 1, holding claim 1 anticipated and obvious, vacated our decision as to claims 2–16, and remanded the case to us for determination of patentability of claims 2–16. *See Ericsson v. Intellectual Ventures I LLC*, 890 F.3d 1336, 1347, 1349 (Fed. Cir. 2018).

Petitioner relies on the testimony of Wayne Stark, Ph.D. (Ex. 1003, “Stark Decl.”; Ex. 1022, “Stark Reply Decl.”) in support of its contentions.

Patent Owner relies on the testimony of Jonathon Wells, Ph.D. (Ex. 2007, “Wells Decl.”) in support of its contentions.

Consistent with the agreement of the parties, no further briefing or evidence is necessary and we decide the patentability of claims 2–16 on the record already established. Paper 35, 2.

Based on the record before us, Petitioner has demonstrated, by a preponderance of the evidence, that claims 2–16 are unpatentable.

B. Related Matters

Patent Owner has asserted the ’408 patent against various companies in several lawsuits filed in the United States District Court for the District of Delaware. Pet. 1; Paper 5, at 1.

C. References Relied Upon

Petitioner relies upon the following prior art references:

Ex. 1006	US 5,592,480	Jan. 7, 1997	(“the ’480 patent”)
Ex. 1007	US 5,537,435	July 16, 1996	(“the ’435 patent”)

Recommendation GSM 05.02, Radio Sub-system Link Control,
EUROPEAN TELECOMMUNICATIONS STANDARDS INSTITUTE,
v. 3.8.0 (Dec. 1995) (Ex. 1012, “GSM 05.02”)

D. The Asserted Grounds

We instituted this proceeding based on the following specific grounds (Dec. Inst. 26)¹:

Reference(s)	Basis	Claims Challenged
The '480 patent	§ 102(b)	1–10, 12–16
The '480 patent, the '435 patent, and GSM 05.02	§ 103(a)	1–16

II. ANALYSIS

A. The '408 Patent

The '408 patent is directed to a method for frequency hopping in cellular wireless communication. Ex. 1001, Abstract. Frequency hopping is a modulation technique in which a transmission frequency is changed according to a schedule in order to reduce the amount of interference experienced at particular frequencies. *Id.* at 2:23–29, 2:33–36, 11:19–24. According to the '408 patent, the Groupe Spécial Mobile (“GSM”) set of mobile communications standards developed by the European Telecommunications Standards Institute (“ETSI”) provides for frequency hopping. *Id.* at 3:1–5. Communications between mobile stations (e.g., cellular phones) and basestations can include several logical channels time division multiplexed into recurring time slots of a single radio frequency (“RF”) channel. *Id.* at 11:43–45. In frequency hopping, a mobile station

¹ The Petition also raised grounds based on additional references, and we denied those grounds. Dec. Inst. 2–3, 17–25. However, both parties have represented that they currently do not seek, and will not seek in the future, to have us address those grounds. Paper 35, 2–3.

maintains its time slot when hopping to a different frequency. *Id.* at 11:45–50.

A preferred embodiment of the invention of the '408 patent is illustrated in Figure 1, reproduced below:

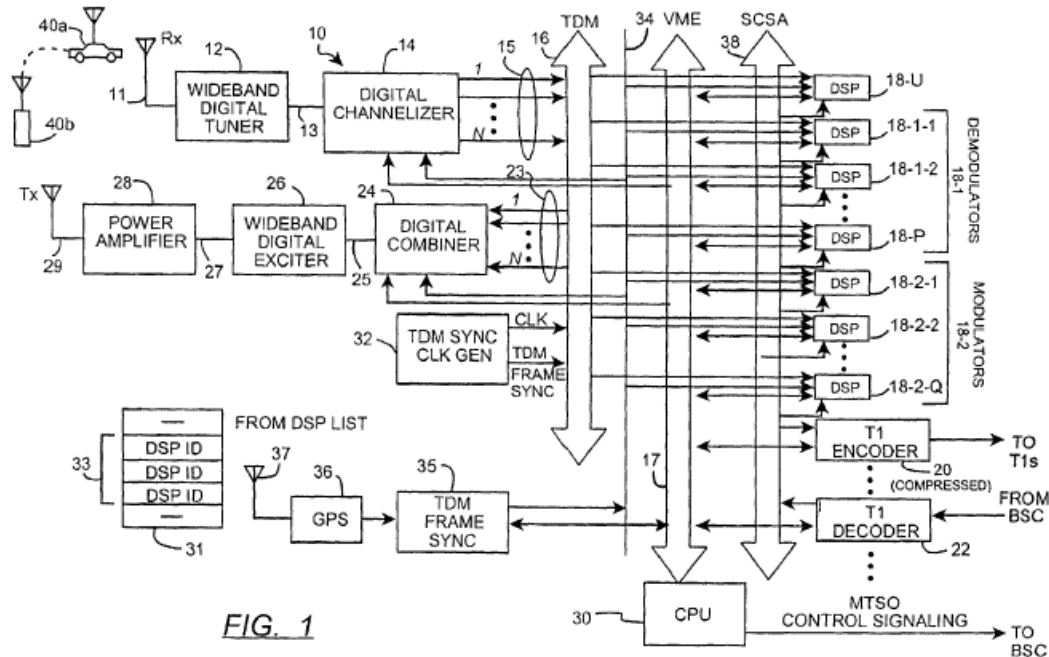


Figure 1 is a block diagram of wideband digital basestation 10 in communication with mobile subscriber terminals 40a, 40b. *Id.* at 3:46–48, 4:36–38. Wideband digital tuner 12 receives a composite RF modulated signal (e.g., modulated voice or data) from a mobile subscriber terminal (e.g., 40a, 40b), down converts the signal to an intermediate frequency, and converts it from analog to digital. *Id.* at 4:53–59. Digital channelizer 14 receives the composite digital signal 13 from digital tuner 12 and separates it into a plurality of digital channel signals 15. *Id.* at 5:1–3.

The digital channel signals are provided to a plurality of digital signal processors (“DSPs”) over time division multiplex (“TDM”) bus 16. *Id.* at

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