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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte AVNEESH AGRAWAL

Appeal 2010-004704
Application 11/077,751
Technology Center 2400

Before DENISE M. POTHIER, ERIC B. CHEN, and
STANLEY M. WEINBERG, *Administrative Patent Judges*.

WEINBERG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-35. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Claims 1-35 stand rejected under 35 U.S.C. § 103(a) as obvious over Das (EP 1 351 538 A1; Oct. 8, 2003) in view of Suzuki (US 4,868,811; Sept. 19, 1989).[1]

STATEMENT OF THE CASE

Appellant's invention involves a shared signaling channel capable of carrying various types of signaling for terminals in a multiple-access communication system. The shared signaling channel has multiple segments. Each terminal is mapped to one or more segments and signaling messages for the terminal are sent on the segments. A mapper receives messages to be sent on the shared signaling channel, identifies the recipient terminals, and determines the segment in which to send the message. *See generally* Spec. ¶¶ 0007, 0027, 0048; Figs. 2, 3.

Independent claim 1 is illustrative with key disputed limitations emphasized:

> 1. An apparatus in a multiple-access communication system, comprising:
>
> *a mapper operative to receive signaling for a plurality of terminals and to map signaling for each terminal to at least one segment among a plurality of segments of a signaling channel*;
>
> a processor operative to process signaling mapped to each segment and to generate output data for the segment; and

[1] Throughout this opinion, we refer to: (1) the Appeal Brief filed June 22, 2009; (2) the Examiner's Answer mailed October 7, 2009; and (3) the Reply Brief filed December 4, 2009.

a multiplexer operative to multiplex the output data for each segment onto system resources allocated for the segment.

THE CONTENTIONS

The Examiner finds that Das teaches the "mapper" and "multiplexer" limitations in representative claim 1. Ans. 3-4, 12.

Appellant contends that Das fails to teach a mapper, mapping signaling for each terminal to at least one segment among a plurality of segments of a signaling channel, and a multiplexer operative to multiplex the output data for each segment onto system resources allocated for the segment. App. Br. 6-9; Reply Br. 2-3.

ISSUES

Under § 103, has the Examiner erred by finding that Das teaches:

(1) a mapper operative to receive signaling for a plurality of terminals and to map signaling for each terminal to at least one segment among a plurality of segments of a signaling channel?

(2) a multiplexer operative to multiplex the output data for each segment onto system resources allocated for the segment?

ANALYSIS

WHETHER DAS TEACHES A MAPPER

Das teaches a HS-SCCH (High-Speed Shared Control Channel) that is "used for transmitting signaling information that is needed for the UE [(user equipment)] to process the corresponding data transmission." Das ¶ 0004, ll. 1-2. The Examiner finds that the HS-SCCH "read[s] on a mapper which is hardware for constructing signaling messages." Ans. 4:1-2.

Appellant contends that Das does not teach or suggest the use of a mapper because (1) although Das teaches message formats for signaling messages having information, it fails to teach or suggest a methodology for constructing the signaling messages; and (2) it fails to illustrate hardware for a mapper, a flowchart describing how messages are generated, and the hardware used for constructing signaling messages. App. Br. 7:1-8.

However, the Examiner further finds that the HS-SCCH reads on a mapper because it is used to transport signaling information for a plurality of UE and that the hardware for constructing the signaling is inherent. Ans. 12:2-6. Appellant's Reply Brief does not contest these further findings, which are consistent with Appellant's explanation that his mapper identifies a recipient terminal of a message, determines the segment in which to send the message based on the recipient terminal, and forwards the message. Spec. ¶ 0048, ll. 6-8.

We agree with the Examiner. Appellant's arguments are not persuasive because an ordinarily skilled artisan would have recognized that Das uses hardware or software of some kind to create and transmit messages and signaling information, as disclosed in Das. Moreover, if Appellant is suggesting that Das is not enabled, the suggestion is not persuasive because materials in patents and in non-patent publications are presumptively enabling barring any showing to the contrary by a patent applicant. *In re Antor Media Corp.*, 689 F.3d 1282, 1287-88 (Fed. Cir. 2012).

Accordingly, we agree with the Examiner that Das teaches a mapper.

WHETHER DAS TEACHES A MAPPER OPERATIVE TO MAP SIGNALING FOR EACH TERMINAL TO AT LEAST ONE SEGMENT AMONG A PLURALITY OF SEGMENTS OF A SIGNALING CHANNEL

We begin by construing claim 1's recitation of "a signaling channel." Appellant describes his signaling channel as a channel that may carry various types of signaling such as resource/channel assignments and access grants (indicating grant of system access for a terminal). Spec. ¶ 0073, ll. 1-2, 10. A resource/channel assignment message contains a channel identifier for each assigned physical channel and modulation scheme to use for data transmission. Spec. ¶ 0076, ll. 6-10.

With this construction, we find no error in the Examiner's reliance on Das's paragraph 0026 and Figure 5(a) to teach mapping to each segment and segments of a signaling channel which are mapped for each UE. Ans. 4:3-5; 12:9-10. Das's discussion of its Figure 5(a) states that its Part 1 message portion includes channelization code, modulation, and UE ID information for all UEs receiving a transmission. Das ¶ 0026, ll. 3-5. More specifically, Figure 5(a) includes UE ID segments 510 and 530, as well as channelization and modulation code segments 520 and 540. Das ¶ 0027, ll. 1-3; Fig. 5(a).

Appellant contends that Das does not teach a plurality of segments of a signaling channel because Das uses the term "segment" to describe a sub-section of a message, instead of portion of a shared signaling channel. App. Br. 7:11–8:2; Reply Br. 2:25-26; 3:6-7. Appellant's argument is not persuasive because, as indicated above, the device in Das's Figure 5(a) transmits more than just message information and performs many of the same functions as Appellant's signaling channel. *Compare* Das's channelization code *with* Appellant's channel identifier; Das's modulation information *with* Appellant's modulation scheme; and Das's UE ID

information *with* Appellant's access grants indicating grant of system access for a terminal. Moreover, claim 1 does not require that the signal channel be shared (*see* App. Br. 7), and the recited phrase, "at least one segment among a plurality of segments of a signaling channel" as broadly as recited, can include all segments of signal channel.

Accordingly, we agree with the Examiner than Das teaches mapping signaling for each terminal to at least one segment among a plurality of segments of a signaling channel.

WHETHER DAS TEACHES A PROCESSOR OPERATIVE TO PROCESS SIGNALING MAPPED TO EACH SEGEMNT AND TO GENERATE OUTPUT DATA FOR THE SEGMENT.

Appellant contends that Das does not teach this limitation because Das does not teach a mapper. App. Br. 8:10-14; Reply Br. 3:6-9.

This argument is not persuasive for the reasons discussed above regarding Das's mapper.

WHETHER DAS TEACHES A MULTIPLEXER OPERATIVE TO MULTIPLEX THE OUTPUT DATA FOR EACH SEGMENT ONTO SYSTEM RESOURCES ALLOCATED FOR THE SEGMENT

The Examiner finds that Das's composite signaling message including at least two segments providing information on a control channel to a different UE reads on multiplexing. Ans. 4:6-9. The Examiner also finds that because multiplexing data is inherent in wireless communication, the segments of the signaling channel shown in Das's Figure 2 are multiplexed by a multiplexer. Ans. 12:17-19. The Examiner also finds that Das teaches

multiplexing because it states that signaling messages are generated for transmission over one or more shared control channels. Ans. 12:19-21.[2]

Appellant's nominal assertions that Das does not teach multiplexing (App. Br. 9:7-8; Reply Br. 3:6-8) are not persuasive because Appellant has not presented evidence that rebuts the Examiner's findings. Appellant's additional assertion (App. Br. 9:10-12) that Das does not teach Appellant's multiplexing because Appellant claims multiplexing output data which comprises information fields and a CRC field is not persuasive because the claims do not contain such recitations.

APPELLANT'S DISCUSSION OF SUZUKI

Appellant's discussion of Suzuki is also not persuasive because Appellant argues Suzuki individually. App. Br. 9:14-15; Reply Br. 3:10. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

We are therefore not persuaded that the Examiner erred in rejecting (1) representative claim 1; (2) claims 12, 19, 24, 28, and 32 for similar reasons; and (3) claims 2-11, 13-18, and 20-23, 25-27, 29-31, and 33-35 not separately argued with particularity.

Accordingly, we will sustain the Examiner's rejection of claims 1-35.

CONCLUSION

Under § 103, the Examiner did not err in rejecting claims 1-35.

[2] The Examiner's citation to paragraph 0025 was apparently intended to cite paragraph 0020, lines 1-2.

DECISION

The Examiner's decision rejecting claims 1-35 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2010).

AFFIRMED

babc