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UNITED STATES PATENT AND TRADEMARK OFFICE

THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALIREZA AFRASHTEH, MASOUD OLFAT,
DOUGLAS A. HYSLOP, and RAJESH M. GANGADHAR

Appeal 2010-007440
Application 11/407,035
Technology Center 2600

Before JAMESON LEE, MICHAEL R. ZECHER, and
BRIAN J. MCNAMARA, *Administrative Patent Judges*.

ZECHER, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

I. STATEMENT OF THE CASE

On January 28, 2013, Appellants filed a Request for Rehearing (hereinafter “Request”) under 37 C.F.R. § 41.52 directed to a new ground of rejection entered against claims 1-23, 25, 26, 28, and 29 in our Decision on Appeal (hereinafter “Decision”) mailed November 26, 2012. In the Decision, we reversed the Examiner’s rejection of claims 1-23, 25, 26, 28, and 29 under 35 U.S.C. § 102(b) as being anticipated by Skillermark, and we entered a new ground of rejection against those claims under 35 U.S.C. § 103(a) as being unpatentable over Skillermark.

Prior Art Relied Upon

Skillermark	US 2002/0164989 A1	Nov. 7, 2002
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Appellants’ Contentions

First, Appellants allege that Skillermark’s disclosure is limited to conventional systems that operate using either frequency division duplexing (“FDD”) or time division duplexing (“TDD”) carriers and, therefore, Skillermark does not disclose a system that operates using both FDD and TDD carriers. Request 4-5. Appellants also argue that there is no evidence in the record to support the Board’s conclusion that one of ordinary skill in the art would have known to combine Skillermark’s systems that only use FDD or TDD carriers to predictably result in one system that allocates resource assignments between both FDD and TDD carriers. *Id.* at 5-6. Appellants assert that such a modification would be beyond the level of an ordinarily skilled artisan. *Id.* at 6-7.

Second, Appellants allege that the Board does not provide evidence to support its finding that Skillermark’s cellular communication systems primarily carry voice data. Request 8. Appellants also argue that because

the Board does not cite to a textual portion of Skillermark that discloses different types of voice data, it would not have been obvious to one with ordinary skill in the art to modify Skillermark to allocate resource assignments to both FDD and TDD carriers based on “the type of voice data to be received.” *Id.* Finally, Appellants assert that when the prior art elements of Skillermark are used according to their established functions, using the type of information to be received as a basis for allocating a resource assignment is not a predictable result. *Id.* at 9.

II. ISSUES

1. Did the Board misapprehend or overlook the limits of Skillermark’s disclosure in concluding that one of ordinary skill in the art would have understood that Skillermark’s adaptive uplink/downlink allocation scheme is capable of being implemented in a communication system that operates using both FDD and TDD carriers?

2. Did the Board provide substantial evidence to support its conclusion that it would have been obvious to one with ordinary skill in the art to allocate resource assignments using Skillermark’s adaptive uplink/downlink allocation scheme to both FDD and TDD carriers based upon “the type of information to be received,” as claimed?

III. ANALYSIS

We have carefully reviewed the Decision in light of Appellants’ allegations of error, but we decline to change the Decision for the following reasons. In particular, we will address Appellants’ allegations in the order in which they are presented in the Request, and as outlined above.

Issue #1

Appellants' arguments in support of their first allegation, *i.e.*, that the Board misapprehended or overlooked the limits of Skillermark's disclosure, are not persuasive. Request 4-5. The Decision states: "Skillermark discloses that its adaptive uplink/downlink allocation scheme may be applicable to other communication systems (¶ [0044]), such as communication systems that operate in an FDD mode (¶ [0033])." Decision 9. For convenience, the relevant citations to Skillermark are provided in their entirety:

- "Examples of systems using these concepts are DECT (TDD FD-TDMA), *UTRA-FDD* (FDD CDMA), *UTRA-TDD* (TDD TD-CDMA) and GSM (FDD FD-TDMA)." ¶ [0033] (emphasis added).
- Below, an exemplifying embodiment is described, taken from an UTRA-TDD system. However, *the invention is not limited to such a system, but can also be applied to other cellular communication systems using frames of communication resources in time or frequency domain or a combination thereof.*

¶ [0044] (emphasis added).

The cited disclosure at ¶ [0044] teaches applying Skillermark's adaptive uplink/downlink allocation scheme to a communication system that uses frames of communication resources in both time and frequency. Contrary to Appellants' arguments, one with ordinary skill in the art would have understood that Skillermark is not limited to conventional systems that operate using either FDD or TDD carriers, but instead explicitly teaches a communication system that operates using both FDD and TDD carriers. Decision 9.

Further, we are not persuaded by Appellants' arguments that there is no evidence in the record to support the Board's conclusion that one of ordinary skill in the art would have known to combine Skillermark's communication systems that only use FDD or TDD carriers to predictably result in one communication system that allocates resource assignments between both FDD and TDD carriers. Request 5-6. Nor are we persuaded by Appellants' argument that such a modification would be beyond the level of an ordinarily skilled artisan. *Id.* at 6.

First, as discussed above, Skillermark explicitly teaches a communication system that operates using both FDD and TDD carriers. ¶ [0044]. Second, Appellants have not submitted any evidence or argument regarding technological difficulties that may prevent one with ordinary skill in the art from using known methods to combine Skillermark's TDD and FDD carriers into one communication system. Third, Appellants have not demonstrated that Skillermark's TDD and FDD carriers, in combination, do not perform the same functions as each carrier would perform separately. Finally, Appellants have not provided any persuasive evidence or technological reasoning pertaining to why the proffered combination would somehow produce an unexpected result. Accordingly, Skillermark teaches the claimed "allocating" method steps "based upon the radio resources of the FDD and TDD carriers," as recited in independent claim 1, and similarly recited in independent claims 6, 11, 16, 19, 25, and 28. Decision 9-10.

Issue #2

We are also not persuaded by arguments made by Appellants in support of their second allegation, *i.e.*, that the Board failed to provide sufficient evidence to support its conclusion that it would have been obvious

to one with ordinary skill in the art to allocate resource assignments in Skillermark's adaptive uplink/downlink allocation scheme to both FDD and TDD carriers based upon "the type of information to be received." Request 7-8. The Decision cites to the disclosure in Skillermark at ¶ [0001] before concluding that "an ordinarily skilled artisan would have recognized that traffic in [Skillermark's cellular] communication systems primarily consists of voice data." Decision 10.

In addition, we are not persuaded by Appellants' argument that because Skillermark does not disclose different types of voice data, it would not have been obvious to one of ordinary skill in the art to modify Skillermark to allocate resource assignments to both FDD and TDD carriers based on "the type of voice data to be received." Request 8. Appellants' argument is not commensurate in scope with the claim limitations recited in independent claim 1, and similarly recited in independent claims 6, 11, 16, 19, 25, and 28—namely allocating resource assignments "based upon . . . the type of information to be received." The claim phrase in question does not require allocating resource assignments based on *different types* of information received by a carrier. Emphasis added. Instead, the scope and breadth of that claim phrase does not preclude allocating resource assignments based upon the type of information received by a carrier, *e.g.*, voice data. Decision 9 (citing to Spec. ¶ [0024]).

Finally, we are not persuaded by Appellants' argument that when the prior art elements of Skillermark are used according to their established functions, using the type of information to be received as a basis for allocating a resource assignment is not a predictable result. Request at 9. Similar to our analysis above, Appellants have not submitted any evidence

or argument regarding technological difficulties that would arise if one with ordinary skill in the art allocates a resource assignment for an uplink to either Skillermark's TDD or FDD carrier based upon the type of information to be received. Nor have Appellants provided any persuasive evidence or technological reasoning pertaining to why the proffered combination would somehow produce an unexpected result. Accordingly, Skillermark teaches the second "allocating" method step and the "type of information to be received," as recited in independent claim 1, and similarly recited in independent claims 6, 11, 16, 19, 25, and 28. Decision 9-10.

IV. CONCLUSION

The allegations set forth in the Request, and as outlined above, have not persuaded us that we erred in entering a new ground of rejection against claims 1-23, 25, 26, 28, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Skillermark.

V. DECISION

Appellants' Request has been granted to the extent that we have reconsidered our Decision, but is denied with respect to making any modification to the Decision.

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) (iv).

REQUEST FOR REHEARING—DENIED