

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MERCEDES-BENZ USA, LLC,

Petitioner,

v.

DAEDALUS PRIME LLC,

Patent Owner.

Case No.: IPR2023-01345

U.S. Patent No. 10,705,588

PATENT OWNER'S AUTHORIZED RESPONSE TO
PETITIONER'S DIRECTOR REVIEW REQUEST

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TABLE OF AUTHORITIES

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I. INTRODUCTION

Authorization for this Response was provided by email, dated March 7, 2025. Ex. 3100. The Board’s Final Written Decision (“FWD”) decision correctly found that Petitioner, MB USA, failed to prove that Shakkarwar (Ex. 1006) discloses a “mapping” of selectable frequencies of graphics processing circuitry to selectable frequencies of an interconnect, as recited in claims 5 and 12. Accordingly, the Request for Director Review should be denied.

II. ARGUMENT

A. Standard of Review

Requests for Director Review are governed by 37 C.F.R. § 42.75. Such Requests of a Board’s FWD are limited to decisions presenting (a) an abuse of discretion, (b) important issues of law or policy, (c) erroneous findings of material fact, or (d) erroneous conclusions of law. USPTO, *Director Review Process*, WWW.USPTO.GOV, <https://www.uspto.gov/patents/ptab/decisions/director-review-process> (last visited Mar. 12, 2025).

Stripped of its rhetoric, MB USA’s complaint is that the Board found MB USA’s allegations concerning the teachings of Shakkarwar wanting. *See* Req. at 2 *et seq.* Such matters do not warrant review by the Director and, even if such a review were conducted, the Board’s decisions in each instance are well supported by the record in this proceeding and should not be disturbed.

B. The Board Correctly Understood the Recited “Mapping” in Claims 5 and 12

After reviewing all the evidence presented by the parties and conducting a thorough oral hearing on the matter, FWD at 2, 15-18; Tr. of Dec. 3, 2024 (Paper 21), the Board concluded that MB USA had failed to establish the unpatentability of claims 5, 6, 12, and 13.¹ FWD at 2. In doing so, the Board understood that resolving the parties’ dispute required construing the claims to determine the meaning of the “mapping” limitation recited in claims 5 and 12. FWD at 11. Relying (correctly) on the description provided by the ’588 patent and the principle that claims should be construed in accordance with their plain and ordinary meaning as understood by a person of ordinary skill in the art as considered in the context in which the terms of the claims are used, *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-17 (Fed. Cir. 2005); *Vitronics Corp. v. Conceptiontronics, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996), the Board determined that “a person of ordinary skill in the art reviewing the ’588 patent would understand that the mapping limitation requires (1) frequencies mapped to frequencies and (2) that a mapping is an association of one value to a corresponding value such that knowing the graphics

¹ MB USA’s contentions concerning claims 5, 6, 12, and 13 were the only ones which were substantively contested by Patent Owner at trial. *See* POR at 12 *et seq.*; FWD at 14 *et seq.*

frequency means that you know the corresponding interconnect frequency. Further, [] the corresponding frequencies are ‘selectable,’ [meaning] there is a set of possible frequencies that are defined from which to select.” FWD at 13. There was no “table” included as part of the Board’s construction as MB USA now contends, Req. at 3, and the Board noted that not only did MB USA fail to provide any proposed construction for the disputed term, but the Board’s construction also was consistent with MB USA’s own expert’s testimony. FWD at 10 (citing Ex. 2001, 21:19–22:2). As such, there were no erroneous findings of material fact or erroneous conclusions of law in the Board’s decision on this matter.

C. The Board Correctly Determined That MB USA Failed to Prove Shakkarwar Discloses a “Mapping” of Selectable Frequencies, as Required by Claims 5 and 12

MB USA complains the Board improperly determined that Shakkarwar failed to disclose the “mapping” recited in the challenged claims. Req. at 7. Not true. The Board carefully considered Shakkarwar’s disclosure concerning a lookup table that lists clock speeds (frequencies) that represent bandwidth needs of specific devices, *id.* at 15, but correctly assessed that this disclosure did not amount to the recited “mapping.” *Id.* at 16. In doing so, the Board took specific note of the competing expert testimony concerning Shakkarwar and of MB USA’s argument that, “in some way the non-core device frequency is associated with the interconnect frequency, in that the calculated interconnect frequency value is based

at least in part on the non-core device frequency input value.” *Id.* But, the conclusory nature of MB USA’s expert testimony and the fact that “[a]dding up frequencies does not *map* a set of frequencies *to* another set of frequencies,” as is done in Shakkarwar, proved fatal to MB USA’s position. *Id.* at 17.

Further, the Board recognized that, “If one uses Shakkarwar’s table to look up a graphics processor frequency, one does not determine the appropriate interconnect frequency because one must also figure out all of the other devices that are operating and consider their frequencies. Because one cannot know the interconnect frequency based on a corresponding non-core device frequency, there is no mapping of non-core frequency to interconnect frequency.” *Id.* MB USA tacitly admits this need to consider the frequencies of various components, Req. at 5, but then fails to recognize that, because of this need, the required “mapping” is not present in Shakkarwar. But as the Board explained, “that Shakkarwar uses one or more non-core frequencies *when calculating* an interconnect frequency does not mean it *maps* non-core frequencies to interconnect frequencies. FWD at 17 (emphasis in original).

Finally, although Shakkarwar describes the use of a lookup table, the Board recognized that this was not determinative of the situation. “[T]he Shakkarwar look-up table provides a list of devices and their corresponding frequencies,” thus, “it [only] maps a set of *devices* to a set of *frequencies*.” FWD at 17-18 (emphasis

in original). This was correctly determined to be different that the claims' requirement of mapping frequencies to frequencies because Shakkarwar "then requires a further summation operation because all devices must be considered in order to figure out an interconnect frequency." *Id.* at 18.

In short, all of MB USA's arguments and evidence was considered by the Board but they did not amount to convincing proof of invalidity. Instead, the Board was persuaded by the testimony of Patent Owner's expert and the disclosure of Shakkarwar itself. *Id.* at 15-18. Nothing about the Board's analysis reflects any misunderstanding of the facts or the application of the law to those facts. As such, there is no reason for the Director to undertake review of the Board's decision.

III. CONCLUSION

For at least these reasons the Request for Director Review should be denied.

Respectfully submitted,

Dated: March 13, 2025

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing:

PATENT OWNER'S AUTHORIZED RESPONSE TO
PETITIONER'S DIRECTOR REVIEW REQUEST

was served on March 13, 2025, by filing this document through the P-TACTS System as well as by delivering a copy via email directed to the attorneys of record for the Petitioner at the following addresses:

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The parties have agreed to electronic service in this proceeding.

Respectfully submitted,

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