

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

SAMSUNG ELECTRONICS CO., LTD, MICRON TECHNOLOGY, INC.,  
MICRON SEMICONDUCTOR PRODUCTS, INC., and  
MICRON TECHNOLOGY TEXAS LLC,<sup>1</sup>  
Petitioner,

v.

NETLIST, INC.,  
Patent Owner.

---

IPR2022-00711  
Patent 10,860,506 B2

---

Before PATRICK M. BOUCHER, JON M. JURGOVAN, and  
DANIEL J. GALLIGAN, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

DECISION

Denying Patent Owner's Request on Rehearing of Final Written Decision  
*37 C.F.R. § 42.71(d)*

---

<sup>1</sup> Micron Technology, Inc., Micron Semiconductor Products, Inc., and Micron Technology Texas LLC filed a motion for joinder and a petition in IPR2023-00205 and have been joined as petitioners to this proceeding.

## I. DISCUSSION

Patent Owner Netlist, Inc. requests reconsideration of our Final Written Decision (Paper 42, “Final Dec.”) holding unpatentable claims 1–20 of U.S. Patent No. 10,860,506 B2 (Ex. 1001, the “’506 patent”). Paper 43 (“Req. Reh’g”).

The standard for a request for rehearing of a Final Written Decision is set forth in 37 C.F.R. § 42.71(d), which provides in relevant part:

The burden of showing a decision should be modified lies with the party challenging the decision. The request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, a reply, or a sur-reply.

In the Final Decision, we found that “a person of ordinary skill in the art would have had a reasonable expectation of success in combining Butt’s read training techniques with Hiraishi’s memory teachings to achieve the claimed invention.” Final Dec. 18. In so finding, we addressed Patent Owner’s arguments that the proposed combination would not work. *See* Final Dec. 16–19 (addressing arguments in Paper 23 at 33–40).

On rehearing, Patent Owner argues that we did not address the arguments about reasonable expectation of success in Section VIII.B.1 (pages 35–38) of the Response. Req. Reh’g 2–3. According to Patent Owner, we discarded these arguments “without explanation, stating only that ‘Petitioner is not required to show a physical combination of two systems,’” and we “misapprehended the applicable law on bodily incorporation.” Req. Reh’g 3 (quoting Final Dec. 17<sup>2</sup>). We disagree that we overlooked any arguments or misapprehended the law.

---

<sup>2</sup> Patent Owner cites page 17 of its Response, but the quoted material comes from the Final Decision.

Petitioner identifies Hiraishi's read leveling circuit 323 as an exemplary location within the data buffer in which Butt's read training teachings would be implemented. *See* Pet. 47 (asserting that "[i]t would have been obvious to apply the teachings of Butt to Hiraishi to set the delay for delay circuit 372 in Hiraishi's Figure 5, *e.g.*, by read leveling circuit 323" (Petitioner's emphasis of reference names omitted; emphasis added)). Patent Owner's arguments on rehearing focus on the lack of a connection between read leveling circuit 323 and delay circuit 372, which Patent Owner asserts shows that a person of ordinary skill in the art would not have had a reasonable expectation of success. *See* Req. Reh'g 1–11.

As an initial matter, Patent Owner's arguments fail to appreciate the skill of a person of ordinary skill in the art. The Supreme Court has stated that, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). The evidence of record shows that implementing Butt's read training in Hiraishi would have been within the skill level of a person of ordinary skill in the art. *See* Final Dec. 18–19 (citing Ex. 1029 ¶¶ 62–63; Ex. 1003 ¶ 149). Furthermore, to the extent a connection between two components that is not shown is required, the person of ordinary skill in the art, who is "a person of ordinary creativity, not an automaton," would recognize this. *See KSR*, 550 U.S. at 421. As we found (Final Dec. 18), Butt discloses that its invention may be implemented with "application specific integrated circuits (ASICs), application specific standard products (ASSPs), field programmable gate arrays (FPGAs), or by interconnecting an appropriate network of conventional component circuits, as is described

herein, *modifications of which will be readily apparent to those skilled in the art(s).*” Ex. 1029 ¶ 63 (emphasis added). Thus, the Final Decision addresses Patent Owner’s arguments.

We further disagree with Patent Owner’s arguments about bodily incorporation. Patent Owner asserts that “[c]ases dealing with bodily incorporation arguments do not stand for the broad proposition that a prior art combination need not include the *claimed* features.” Req. Reh’g 10. The disputed claimed feature is to “delay the first read strobe by a first predetermined amount to generate a first delayed read strobe . . . wherein the first predetermined amount is determined based at least on signals received by the first data buffer during one or more previous operations.” See Req. Reh’g 11. We found that the combination of Hiraishi and Butt teaches this subject matter. Final Dec. 13–19. Patent Owner does not dispute Petitioner’s contention that Butt’s read training adjusts a delay of a read strobe based on a previous memory operation. See Pet. 43–47; see Ex. 1029 ¶¶ 33, 35 (disclosing that “read training” is used “to establish optimum DQS strobe settings” and to “shift the DQS strobe to be optimally positioned relative to DQ (valid read data),” which involves “adjusting a delay of the read data strobe signal DQS to approximately center the read data strobe signal DQS in the valid data eye window”). Thus, Patent Owner does not identify any claimed subject matter that is not taught or suggested by the combination of Hiraishi and Butt.

Patent Owner asserts that its “argument is rooted exclusively in the *claimed* features, while the cited cases rejecting bodily incorporation arguments address attempts to incorporate *unclaimed* features into the combination to support nonobviousness.” Req. Reh’g 10. We disagree with Patent Owner’s characterization of its argument because claim 1 does not

recite any particular location inside the data buffer at which the delay determination is made. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016) (“The reasonable expectation of success requirement refers to the likelihood of success in combining references *to meet the limitations of the claimed invention.*” (emphasis added)). Dependent claim 11 merely recites that “the first data buffer includes circuitry that determines the first predetermined amount based at least on the signals received by the first data buffer during one or more previous operations.” The combination of Hiraishi and Butt teaches circuitry for making the determination. *See, e.g.*, Final Dec. 18 (discussing Butt’s disclosure of circuitry for implementing its read training, including “application specific integrated circuits (ASICs), application specific standard products (ASSPs), field programmable gate arrays (FPGAs), or by interconnecting an appropriate network of conventional component circuits, as is described herein, modifications of which will be readily apparent to those skilled in the art(s)” (Ex. 1029 ¶ 63)); *see also* Ex. 2008, 135:23–136:22 (Dr. Wedig’s testimony regarding whether additional circuitry is needed in Hiraishi: “If you don’t buy the fact that it already was built into Hiraishi, then it would be an addition to be able to add the teachings of Butt, and it would be the circuitry that is discussed in Butt in order to help make this fine-tuning mechanism obvious.”), 138:24–139:3 (“So in order to implement the ideas, to implement the invention taught by Butt, if in fact you don’t feel as though it already is there, then, of course, you would need to add the circuitry in order to implement the invention of Butt.”).

Thus, we do not agree with Patent Owner’s assertion on rehearing that we misapprehended the law on bodily incorporation. For the reasons explained in the Final Decision, we find that “the combined teachings of

[Hiraishi and Butt] would have suggested to those of ordinary skill in the art” the claimed subject matter. *See MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294 (Fed. Cir. 2015).

Because we did not misapprehend or overlook any matters in our analysis of Patent Owner’s arguments during trial, we deny Patent Owner’s rehearing request.

## II. ORDER

In view of the foregoing, it is:

ORDERED that Patent Owner’s Request for Rehearing of the Board’s Final Written Decision is *denied*.

IPR2022-00711  
Patent 10,860,506 B2

For PETITIONER:

Eliot D. Williams  
Theodore W. Chandler  
Ferenc Pazmandi  
Mark A. Speegle  
Brianna L. Potter  
BAKER BOTTS L.L.P.  
eliot.williams@bakerbotts.com  
ted.chandler@bakerbotts.com  
ferenc.pazmandi@bakerbotts.com  
mark.speegle@bakerbotts.com  
brianna.potter@bakerbotts.com

For PATENT OWNER:

Hong Annita Zhong  
Jonathan M. Lindsay  
IRELL & MANELLA LLP  
hzhong@irell.com  
jlindsay@irell.com