

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MACRONIX INTERNATIONAL CO., LTD.,
MACRONIX ASIA LIMITED, MACRONIX (HONG KONG) CO., LTD.,
and MACRONIX AMERICA, INC.,
Petitioners,

v.

SPANSION LLC,
Patent Owner.

Case IPR2014-00106
Patent 6,900,124 B1

Before HOWARD B. BLANKENSHIP, KRISTEN L. DROESCH, and
JUSTIN T. ARBES, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION
Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Macronix International Co., Ltd., Macronix Asia Limited, Macronix (Hong Kong) Co., Ltd., and Macronix America, Inc. (collectively “Petitioners”) requests rehearing of our Decision, entered April 24, 2014 (Paper 13, “Decision”) denying institution of an *inter partes* review of claims 1–10 of U.S. Patent No. 6,900,124 B1 (“the ’124 Patent”). Specifically, Petitioners request rehearing of our Decision not to review independent claim 6, and claim 10 dependent therefrom, as unpatentable under 35 U.S.C. § 103(a) over Goda (Ex. 1003) in view of Toshiba (Ex. 1006). Req. Reh’g 1.

Petitioners’ Rehearing Request makes several new arguments that are not in the Petition. A request for rehearing is not an opportunity to make new arguments. A rehearing request “must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed.” 37 C.F.R. § 42.71(d). Petitioners fail to show that we overlooked or misapprehended material facts or arguments in our analysis addressing the combined teachings of Goda and Toshiba.

II. DISCUSSION

Petitioners contend the Board misapprehended or overlooked the following:

- (a) Toshiba’s use of the term “slightly oval in shape” (Req. Reh’g 2–4);
- (b) Toshiba’s disclosure of an “elliptical shape” contact, as construed by the Board (Req. Reh’g 4–9);
- (c) the combination of Goda and Toshiba teaches an “elliptical shape” contact (Req. Reh’g 9–11);

- (d) Petitioners' argument for the combination of Goda and Toshiba (Req. Reh'g 11–13), and
- (e) Petitioners' use of the term “patterning” in the arguments that the patterning techniques of Toshiba should be applied to Goda (Req. Reh'g 13–14).

A. Misapprehension of the Term “Slightly Oval in Shape.”

Petitioners assert that the Board misapprehended the use of the phrase “slightly oval in shape” by the writer of Toshiba when describing the shape of the contacts in Photographs 3.1.4 and 3.1.5. Req. Reh'g 2. Petitioners contend that in view of the contacts depicted in Photographs 3.1.4 and 3.1.5, “it is abundantly clear that the writer [of the Toshiba reference] was using the word ‘oval’ in a generally accepted use of the term – meaning elliptical, and no further elaboration by the writer was necessary.” Req. Reh'g 3. Petitioners further assert that the writer used the adverb “slightly” to describe the degree of eccentricity of the elliptical contacts depicted in Photographs 3.1.4 and 3.1.5 and to describe the eccentricity of Toshiba's curved contacts having minor and major axis dimensions of 0.35 microns and 0.40 microns. Req. Reh'g 3–4. In support of its assertions, Petitioners cite several dictionary definitions of “ellipse” that include the term “oval.” Req. Reh'g 3.

Petitioners do not identify where Toshiba's meaning of “slightly oval,” and the meaning of “ellipse” as inclusive of “slightly oval,” were addressed previously in the Petition. Indeed, Petitioners did not provide an explicit definition for “elliptical shape” in the Petition. *See* Decision 8. We cannot overlook or misapprehend facts or arguments that have not been presented in the Petition. Nonetheless, we are not persuaded by Petitioners'

arguments regarding the intent of Toshiba's author when using the term "slightly oval," because these arguments are speculative and unsupported by objective evidence in the record. Also unpersuasive is Petitioners' new suggestion that the meaning of "slightly oval" and "ellipse" are interchangeable. We note that "oval" has several meanings. For example, one of the dictionaries cited by Petitioners, Merriam Webster's Collegiate Dictionary Tenth Edition, 1997, defines the adjective "oval" as: "having the shape of an egg"; and "shaped like a circle that is longer than it is wide."

B. Toshiba Discloses an "Elliptical Shape" Contact.

Petitioners do not request rehearing with respect to the Board's claim construction of "elliptical shape," but instead asserts that "it is clear that the contact holes depicted in Photographs 3.1.4 and 3.1.5 of Toshiba are encompassed by the construction adopted by the Board." Req. Reh'g 6. Petitioners provide an enlargement of a portion of Photograph 3.1.4 from Toshiba showing one of the contacts with annotations to illustrate the features required by the broadest reasonable interpretation of "elliptical shape" in light of the '124 Patent Specification. Req. Reh'g 6-7.

Petitioners acknowledge that the analysis presented in the Request for Rehearing was not provided in the Petition. Req. Reh'g 6-7. Nevertheless, even if it had been, we are not persuaded by Petitioners' new analysis, as it amounts to attorney argument, unsupported by objective evidence in record. Additionally, based on Petitioners' analysis, the following facts remain unclear: (1) whether the scale of original Photograph 3.1.4, was preserved in Petitioners' enlarged portion of Photograph 3.1.4, and (2) the methodology utilized to ascertain the border of the shape in the coarsely pixelated enlarged portion of Photograph 3.1.4.

C. Combination of Goda and Toshiba Teaches an Elliptical Shaped Contact.

Petitioners assert that we incorrectly found that “Dr. Mack’s declaration does not illuminate what is meant by ‘ellipse.’” Req. Reh’g 10 (citing Decision 26). Petitioners assert that Dr. Mack describes an ellipse as an elongated circle because the Decision noted that Dr. Mack describes that Goda’s rectangular photomask will produce a contact that is “an elongated circle (or ellipse).” *Id.* (citing Decision 22).

We are not persuaded by Petitioners’ arguments that our analysis was incorrect. Our analysis included a citation to paragraph 90 of Dr. Mack’s declaration, which stated that “Photograph 3.1.4 of Toshiba . . . discloses a contact hole patterned as an ellipse.” Decision 26. The immediately preceding sentence in our Decision also addresses Photographs 3.1.4 and 3.1.5 of Toshiba. Our finding that “Dr. Mack’s declaration does not illuminate what is meant by ‘ellipse,’” is directed to Dr. Mack’s discussion of Toshiba in Dr. Mack’s declaration, particularly paragraph 90. Furthermore, Petitioners’ arguments that Dr. Mack describes an ellipse as an elongated circle, and that this meaning is consistent with the ’124 Patent Specification, are newly presented arguments. Petitioners do not identify where these arguments were previously addressed in the Petition in the context of addressing Toshiba. We are not persuaded that we abused our discretion in finding that Dr. Mack did not illuminate sufficiently what is meant by “ellipse” in his testimony discussing Toshiba. Dr. Mack’s testimony discussing a different reference, Goda, does not illuminate sufficiently the meaning of “ellipse” in the context of his testimony discussing Toshiba.

D. Misapprehension of Argument for Combination of Goda and Toshiba.

Petitioners assert that we misapprehended that Petitioners did not argue that the combined teachings of Goda and Toshiba teach the elliptical shape limitation, recited in claim 6. Req. Reh’g 12. Petitioners assert that the Petition discussed the elliptical shaped contact of Goda followed by an assertion that Toshiba discloses a near identical image of a contact hole patterned as an ellipse. *Id.* (citing Pet. 41, 55).

We are not persuaded by Petitioners’ arguments. The Petition does not make clear that Toshiba was relied upon to teach the elliptical shape contact, deficient in Goda alone. *See* Pet. 40–42. In fact, Petitioners do not identify any possibility that Goda could be deficient in disclosing the “elliptical shape” limitation of claim 6. Pet. 41 (“The Goda reference discloses each and every limitation of claims 1 and 6 of the ’124 Patent.”).

E. Misapprehension of Petitioners’ Use of Term “Patterning.”

Petitioners further assert that we misapprehend Petitioners’ use of the term “patterning,” in the following reasoning provided in the Petition: “it would have been obvious to a person having ordinary skill in the art (at least to try) to apply the patterning and insulation techniques disclosed in Toshiba to the patterning techniques disclosed in Goda because both inventions center around improved manufacturing techniques for memory devices involving the patterning of control gates and contact holes.” Req. Reh’g 13; Pet. 41–42 (citing Ex. 1002 ¶¶ 93–94). Petitioners assert that its use of the term “patterning” is the conventional use of the term in photolithography, meaning to define the location and shape of features, such as contact holes. Req. Reh’g 13. Petitioners further argue that the ’124 Patent utilizes the term “patterning” in the same way as Petitioners based on the disclosure that

“Vss contact hole 116 is patterned in an elliptical shape.” Req. Reh’g 13 (citing Ex. 1001, col. 5, ll. 56–61). Petitioners argue that when Petitioners discuss Toshiba’s contact hole patterned as an ellipse in the same paragraph in which it argues to apply the patterning techniques of Toshiba to Goda, Petitioners are expressly arguing to apply Toshiba’s patterning of an elliptical shape contact to the teachings of Goda. Req. Reh’g 14 (citing Pet. 41).

We are not persuaded that we overlooked or misapprehended any arguments or facts presented in the Petition. Petitioners do not direct us to where the meaning of the term “patterning” was previously addressed in the Petition. Moreover, we are not persuaded that “patterning,” in its conventional use in photolithography, means to define the location and shape of features, because Petitioners’ assertion is unsupported by sufficient objective evidence, such as testimony by one skilled in the art of photolithography. The ’124 Patent disclosure that “Vss contact hole 116 is patterned in an elliptical shape,” is not, by itself, dispositive of the meaning of “patterning,” in its conventional use in photolithography. Petitioners further do not identify where Petitioners argued to apply the patterning of *an elliptical shape contact*, asserted to be taught by Toshiba, to the teachings of Goda. Rather, the following general assertions were presented in the Petitions:

[i]t would have been obvious to a person having ordinary skill in the art (at least to try) to apply the patterning and insulation techniques disclosed in Toshiba to the patterning techniques disclosed in Goda because both inventions center around improved manufacturing techniques for memory devices involving patterning of control gates and contact holes.

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Pet. 41–42 (citing Ex. 1002 ¶¶ 93–94). The reasoning presented in the Petition does not address the shape of the contact holes, but is generally directed to patterning and insulation techniques, or manufacturing techniques for memory devices involving patterning of control gates and contact holes. We cannot misapprehend or overlook arguments that were not made in the Petition.

III. DECISION ON REHEARING

Petitioners' Request for Rehearing is *denied*.

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