

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FORMFACTOR, INC.,
Petitioner,

v.

TECHNOPROBE S.P.A.,
Patent Owner.

Case IPR2024-00933
Patent No. 11,035,885

PATENT OWNER'S PRELIMINARY RESPONSE

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I. THE BOARD SHOULD DENY INSTITUTION BECAUSE THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD OF UNPATENTABILITY FOR ANY CLAIM

The Board should deny institution because Petitioner has failed to demonstrate a reasonable likelihood of success regarding any claim. Petitioner bears the burden of presenting, with particularity, the evidence that supports the grounds for the challenge to each claim. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3)) (requiring inter partes review petition to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”). Petitioner failed to meet that burden as explained below.

A. The Petition fails to identify with particularity what in *Kim* constitutes the claimed “first conductive portion” and “second conductive portion.”

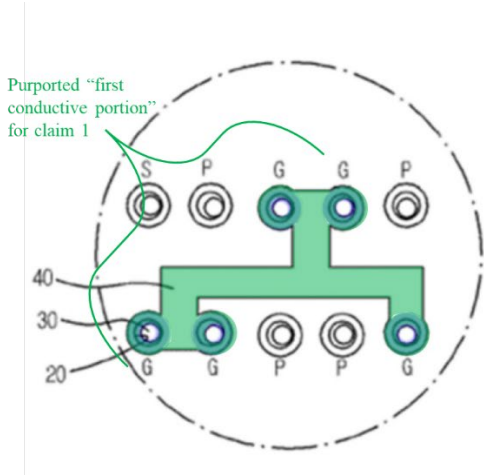
Independent claims 1, 16, and 23 of the ’885 patent recite “a first conductive portion” and “a second conductive portion.” The Petition fails to articulate, with particularity, what in *Kim* discloses these claim elements. Compounding this problem, claim 14, which depends from claim 1, also recites the same “first conductive portion” and “second conductive portion,” but the Petition points to different components in *Kim* for claim 14 than it did for claim 1. The Board has held that inconsistent mappings of the same claim term undermine a finding of unpatentability of the claims based on anticipation grounds. *See Commscope Techs.*

LLC v. Belden, Inc., IPR2023-01056, Paper 7 at 24 (PTAB Dec. 15, 2023) (“Petitioner’s inconsistent position on the interpretation of the ‘lateral edge’ term among its Grounds 1, 3, and 4 arguments undermines its position as to the interpretation of the term, and undermines its position that Glew discloses this limitation under an anticipation standard.”). The Board should hold the same way here and deny institution because the Petition’s inconsistent positions infect each asserted ground.

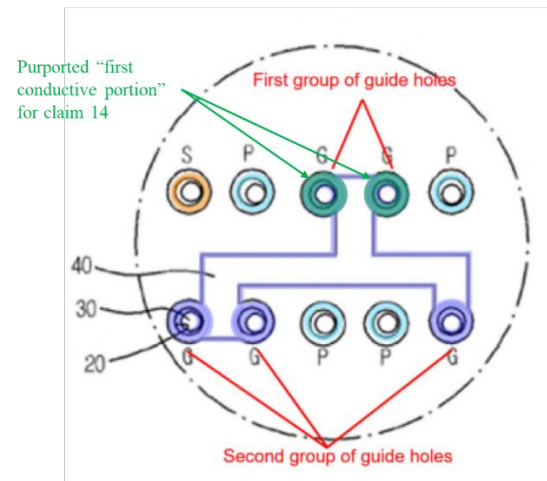
When discussing independent claim 1 (the analysis of which is cross referenced for independent claims 16 and 23), the Petition asserts that “[t]wo or more of the conductive layers (20) connected by *some or all* of the conductive trace (40) collectively constitute the claimed ‘first conductive portion.’” Pet. at 31 (emphasis added); *see also id.* at 32 (referring to “conductive layers 20 and conductive trace 40 electrically connect[ing] a group of guide holes” as “this ‘first conductive portion’”). The Petition’s nebulous description of what constitutes the first conductive portion in the context of claim 1 fails to identify with particularity how *Kim* anticipates claim 1 because it does not show how *Kim* discloses the elements “‘arranged as in the claim.’” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369-71 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983)).

The Petition’s claim 1 analysis is further exacerbated by its analysis of dependent claim 14, where the Petition takes positions inconsistent with those taken for claim 1. For claim 1, the Petition asserts that some of the conductive layers 20 “collectively” with “some or all of” the conductive trace 40 constitute the claimed first conductive portion for claim 1. Pet. at 31 (emphasis added); *see also id.* at 32. But then it changes tack when discussing claim 14, arguing that some conductive layers 20 *alone* constitute the claimed “first conductive portion.” *See id.* at 48-49. Specifically, for claim 14, the Petition asserts that “[t]he *conductive layers 20* at these ‘first and second group of guide holes’ *are* the claimed ‘first’ and ‘second conductive portions.’” *Id.* at 48-49 (emphasis added). Furthermore, in its analysis of claim 14, the Petition describes the conductive trace 40 of *Kim* as constituting an entirely different claimed feature, namely the “conductive track.” *Id.* at 49.

Thus, when it analyzes claim 1, the Petition identifies conductive trace 40 of *Kim* as being included in the “first conductive portion” but when analyzing dependent claim 14, it excludes that same conductive trace 40 from the “first conductive portion.” The following figures from the Petition have been further annotated with **green** to illustrate the Petition’s inconsistent identification of the first conductive portion for claim 1 (Pet. at 34) as compared to that for claim 14 (*id.* at 49):



Pet. at 34 (claim 1) (annotated)

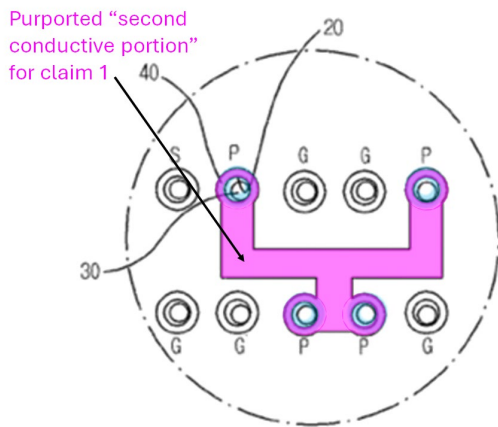


Pet. at 49 (claim 14) (annotated)

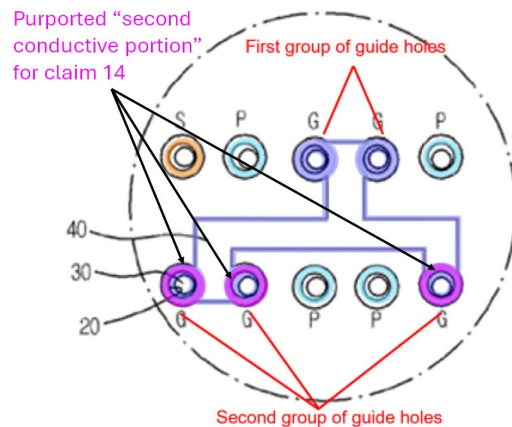
The Petition also advances inconsistent positions regarding the “second conductive portion” as recited in claims 1 and 14. For claim 1, the Petition asserts that “Kim describes and illustrates in Fig. 5b that testing pins carrying power signals (represented by ‘P’) are electrically connected via the conductive layers (20) and conductive trace (40).” Pet. at 36. While failing to clearly identify the “second conductive portion” in *Kim*, the Petition implies that the conductive layers 20 and conductive trace 40 of Fig. 5b constitute one of two “conductive portions.” *Id.* at 36-37. It also vaguely states that “[t]he disclosures cited above for limitation [1C] [(which recites the “first conductive portion”)] thus also apply to limitation [1D] [(which recites the “second conductive portion”)] and are incorporated herein.” *Id.* at 35. While it is unclear which parts of that section the Petition intends to incorporate (because the sections address different conductive portions), this statement further suggests that the Petition is including both conductive layers 20

and conductive trace 40 as part of the “second conductive portion,” as it did with the “first conductive portion.”

Then, when analyzing claim 14, the Petition again contradicts itself because it asserts that *some* conductive layers 20 *alone* constitute the claimed “second conductive portion” Pet. at 48-49. Thus, in its analysis of claim 14, the Petition not only excludes the conductive trace 40 but also excludes conductive layers 20 associated with pins labeled “P” from its identification of the claimed “second conductive portion.” *Id.* Instead, the Petition identifies a conductive layer associated with pins labeled “G” as the second conductive portion for claim 14. The following figures from the Petition have been further annotated with pink to illustrate the Petition’s inconsistent identification of the second conductive portion for claim 1 (*id.* at 36) with that for claim 14 (*id.* at 49):



Pet. at 36 (claim 1) (annotated)



Pet. at 49 (claim 14) (annotated)

The Petition's inconsistent mappings of what in Kim constitutes the "first conductive portion" and the "second conductive portion" are fatal to its anticipation analysis of claim 1. *See Commscope*, IPR2023-01056, Paper 7 at 24. And while the Petition does not advance an anticipation theory for claims 16 and 23, its obviousness analysis for those claims relies solely on its claim 1 anticipation analysis for the "first conductive portion" and the "second conductive portion." Pet. at 64-67; *see infra* Section I.C. Accordingly, the Petition's flawed analysis for claim 1 infects its analysis of claims 16 and 23, undermining all grounds in the Petition.

"[T]he burden of persuasion is on the petitioner to prove 'unpatentability by a preponderance of the evidence.'" *In re Magnum Oil Tools Intl., Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016) (quoting 35 U.S.C. § 316(e)). Moreover, the Board is bound by the inconsistent theories advanced by the Petitioner and may not *sua sponte* modify any of those theories to determine unpatentability of the challenged claims. *Id.* at 1381. The Board should, therefore, deny institution because the Petition fails to meet its burden of identifying with particularity the claimed "first conductive portion" and "second conductive portion." *See* 35 U.S.C. § 312(a)(3); *Harmonic*, 815 F.3d at 1363.

B. The Petition fails to demonstrate that *Kim* discloses a “conductive portion that includes and electrically connects . . . guide holes.”

Element [1B] of independent claim 1 requires “a plurality of guide holes.” Ex. 1001, claim 1. Elements [1C] and [1D] build on this limitation and further require that the first and second conductive portions each *include* guide holes from that plurality of guide holes. They recite: “a first conductive portion that *includes and electrically connects a first group of guide holes, of the plurality of guide holes*” and “a second conductive portion that *incudes and electrically connects the holes of a second group of the guide holes.*” *Id.* (emphases added). Independent claims 16 and 23 recite similar features. *Id.*, claims 16, 23. The Petition, however, fails to even allege that the purported guide holes in *Kim* are included in the purported first and second conductive portions as required for all independent claims. It therefore fails to explain how *Kim* “disclose[s] those elements ‘arranged as in the claim.’” *Net MoneyIN*, 545 F.3d at 1369 (quoting *Connell*, 722 F.2d at 1548). The Board should deny institution based on this additional deficiency.

Specifically, when discussing element [1B], the Petition alleges that “11b” and “12b” of *Kim* constitute the claimed “guide holes.” Pet. at 30. Next, in its analysis of element [1C], the Petition alleges that “conductive layers (20) are formed on ‘an inner surface of the guide hole’” and that “[t]wo or more of the conductive layers (20) connected by some or all of the conductive trace (40) collectively

constitute the claimed ‘first conductive portion.’” *Id.* at 31. But the Petition does not even allege that *Kim*’s guide holes 11b or 12b are *included in* the identified “first conductive portion.” *See id.* at 31-35.

Similarly, in its analysis of element [1D], the Petition asserts that “Figures 5a and 5b show two different ‘conductive portions’ (two different sets of conductive layers 20 and conductive traces 40).” Pet. at 36-37. Here again, the Petition provides no discussion regarding how any of *Kim*’s guide holes 11b and 12b are included in the “second conductive portion.” *See id.* at 35-37.

Thus, the Petition has failed to meet its burden of demonstrating that *Kim* discloses a “conductive portion that includes and electrically connects . . . guide holes,” as recited in each independent claim. The Petition’s failure of proof of this feature infects all grounds and, therefore, none should be instituted.

C. The Petition’s obviousness arguments do not salvage its flawed anticipation position.

In its obviousness analysis of claim 1, the Petition focuses on purported “differences in terminology” between *Kim* and the ’885 patent (Pet. at 50), the purported obviousness of combining the teachings of *Kim*’s embodiments (*id.*), and on the purported disclosures of the Korean Patent Application No. 10-2014-0004576 (*id.* at 51). However, the Petition’s obviousness analysis does not address any of the deficiencies identified above in Sections I.A and I.B. *See id.* at 49-52.

Similarly, in the analyses of claim 16 and 23 which cross reference the analyses for claims 5 and 6 (Pet. at 66, 67), the Petition relies on *Schmid* for the purported teaching of three guide plates, (*id.* at 61-64). However, the Petition's obviousness analysis for claims 16 and 23, based on *Kim* alone or in combination with *Schmid*, also does not address any of the deficiencies identified above in Sections I.A and I.B. *See generally id.* at 61-67.

Accordingly, the Petition has failed to demonstrate that any of claims 1-23 of the '885 patent is obvious. The Board should, therefore, deny institution for this additional reason.

II. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution.

Respectfully submitted,

Dated: October 29, 2024

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), I, Houtan K. Esfahani, certify that **Patent Owner's Preliminary Response** contains 1,900 words, excluding those portions identified in 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

Dated: October 29, 2024

/Houtan K. Esfahani/
Houtan K. Esfahani, Reg. No. 41,893

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Patent Owner's Preliminary Response** was served electronically via email on October 29, 2024, in its entirety on the following:

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Dated: October 29, 2024

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